WEST

Search Results - Record(s) 1 through 7 of 7 returned.

L5: Entry 1 of 7 File: USPT Jan 2, 2001

US-PAT-NO: 6168796
DOCUMENT-IDENTIFIER: US 6168796 B1

TITLE: Immunostimulating activity of Streptococcus pneumoniae serotype 8 oligosaccharides
DATE-ISSUED: January 2, 2001

US-CL-CURRENT: 424/244.1; 424/193.1, 424/197.11, 424/203.1, 424/282.1, 536/123.1
INT-CL: [7] A61K 39/09

L5: Entry 2 of 7 File: USPT Oct 17, 2000

US-PAT-NO: 6132723
DOCUMENT-IDENTIFIER: US 6132723 A

TITLE: Immunogenic oligosaccharide compositions
DATE-ISSUED: October 17, 2000

US-CL-CURRENT: 424/193.1; 424/194.1, 424/196.11, 424/197.11, 424/234.1, 424/244.1, 514/53, 514/54, 530/403, 530/416, 530/417, 536/123.1
INT-CL: [7] A61K 39/385

L5: Entry 3 of 7 File: USPT Jun 29, 1999

US-PAT-NO: 5916571
DOCUMENT-IDENTIFIER: US 5916571 A

TITLE: Immunostimulating activity of streptococcus pneumoniae serotype 8 oligosaccharides
DATE-ISSUED: June 29, 1999

US-CL-CURRENT: 424/244.1; 424/193.1, 424/234.1, 536/123.1, 536/127
INT-CL: [6] A61K 39/09

L5: Entry 4 of 7 File: USPT Feb 2, 1999

US-PAT-NO: 5866132

DOCUMENT-IDENTIFIER: US 5866132 A

TITLE: Immunogenic oligosaccharide compositions
DATE-ISSUED: February 2, 1999

US-CL-CURRENT: 424/193.1; 424/234.1, 424/243.1, 530/395, 530/403, 530/405
INT-CL: [6] A61K 39/385

L5: Entry 5 of 7 File: USPT Jan 5, 1999

US-PAT-NO: 5855901
DOCUMENT-IDENTIFIER: US 5855901 A

TITLE: Immunostimulating activity of Streptococcus pneumoniae serotype 8 oligosaccharides
DATE-ISSUED: January 5, 1999

US-CL-CURRENT: 424/244.1; 424/197.11, 424/234.1, 536/123.1
INT-CL: [6] A61K 39/09

L5: Entry 6 of 7 File: USPT Sep 15, 1998

US-PAT-NO: 5807553
DOCUMENT-IDENTIFIER: US 5807553 A

TITLE: Immonogenic oligosaccharide compositions
DATE-ISSUED: September 15, 1998

US-CL-CURRENT: 424/193.1; 424/194.1, 424/196.11, 424/197.11, 424/234.1, 530/403, 530/416, 530/417
INT-CL: [6] A61K 39/385

L5: Entry 7 of 7 File: USPT Jun 30, 1998

US-PAT-NO: 5773007
DOCUMENT-IDENTIFIER: US 5773007 A

TITLE: Vaccine compositions
DATE-ISSUED: June 30, 1998

US-CL-CURRENT: 424/197.11; 424/278.1, 514/18, 514/19
INT-CL: [6] A61K 39/09, A61K 39/085, A61K 39/108, A61K 47/42

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Search Results - Record(s) 1 through 3 of 3 returned.

L3: Entry 1 of 3 File: USPT Dec 8, 1998

US-PAT-NO: 5847112
DOCUMENT-IDENTIFIER: US 5847112 A

TITLE: Process for making capsular polysaccharides from Streptococcus pneumoniae
DATE-ISSUED: December 8, 1998

US-CL-CURRENT: 536/127; 424/244.1, 435/101, 536/123, 536/123.1, 536/124, 536/126
INT-CL: [6] C07H 1/08, C08B 37/00, C12P 19/04, A61K 39/09

L3: Entry 2 of 3 File: USPT Feb 3, 1998

US-PAT-NO: 5714354
DOCUMENT-IDENTIFIER: US 5714354 A

TITLE: Alcohol-free pneumococcal polysaccharide purification process
DATE-ISSUED: February 3, 1998

US-CL-CURRENT: 435/101; 424/244.1, 514/54, 536/123.1
INT-CL: [6] C12P 19/04, A61K 39/09, A61K 31/715, C08B 37/00

L3: Entry 3 of 3 File: USPT Apr 22, 1997

US-PAT-NO: 5623057
DOCUMENT-IDENTIFIER: US 5623057 A

TITLE: Pneumococcal polysaccharide conjugate vaccine
DATE-ISSUED: April 22, 1997

US-CL-CURRENT: 530/404; 424/193.1, 424/194.1, 424/197.11, 424/234.1, 424/237.1, 424/241.1, 424/244.1, 424/256.1, 424/260.1, 530/403, 530/405, 530/406, 530/408, 530/409
INT-CL: [6] C07K 17/02, A61K 39/385

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L7: Entry 3 of 33 File: USPT Jun 12, 2001

DOCUMENT-IDENTIFIER: US 6245335 B1
TITLE: Choline binding proteins for anti-pneumococcal vaccines

Brief Summary Paragraph Right (12):
A variety of covalent and non-covalent mechanisms of attachment have been described for proteins decorating the surfaces of gram positive bacteria. Some streptococci and Clostridium sp. have phosphorylcholine as a unique component of the cell wall. This molecule is the terminal constituent of the teichoic acid (C polysaccharide) and lipoteichoic acid (LTA) attached to the cell wall and plasma membrane of these bacteria. A family of choline binding proteins (CPBs) have also been described which serve a variety of cellular functions. These proteins consist of an N-terminal activity domain and a repeated C-terminal signature choline binding domain that anchors these molecules to the surface of the bacteria. This motif has been identified in the C-terminal regions of a secreted glycoprotein from Clostridium acetobutylicum NCIB 88052 [Sanchez-Beato, et al., J. Bacteriol. 177:1098-1103 (1995)], toxins A and B from Clostridium difficile [Von Eichel-Streiber and Sauerborn, Gene 96:107-13 (1990); Von Eichel-Streiber et al., J. Bacteriol. 174:6707-6710 (1992)], a glucan-binding protein from Streptococcus mutans, several glycosyltransferases from Streptococcus downei and S. mutans, the murein hydrolase (LytA) from pneumococcus and pneumococcal lytic phage [Ronda et al., Eur. J. Biochem. 164:621-4 (1987); Diaz et al., J. Bacteriol. 174:5516-25 (1992); Romero et al., Microb. Lett. 108:87-92 (1993); Yother and White, J. Bacteriol. 176:2976-85 (1994)], and a surface antigen (PspA) also from pneumococcus.

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L2: Entry 22 of 40 File: USPT Dec 10, 1996

DOCUMENT-IDENTIFIER: US 5582828 A
TITLE: Active fractions of Cordyceps sinensis and method of isolation thereof

Drawing Description Paragraph Right (23):
The requirements for animal models include both specificity and the capacity for developing renal histopathological lesions that are similar to those found in the corresponding human disorders. In view of the above considerations, the IgA nephropathy models developed by Rifai A. et al were adopted for the experiments used in developing this invention. The selected antigen was R36A, a purified C-polysaccharide obtained from the cell wall of Streptococcus pneumoniae, and the antibody employed was the IgA monoclonal antibody that is specific to R36A to form nephritogenic IgA immune complex, which can induce hematuria and proteinuria in mice with IgA deposition in mesangial area. For this experiment, the R36A antigens were i.p injected into mice and the IgA monoclonal antibody (monoclonal antibody specific for R36A) was injected into the tail vein. The IgA immune complexes formed in the blood vessels of the mice were then transported by the circulating system to the kidney, where they became deposited in the mesangial area leading to henmturia and protcinuria. Subsequent renal biopsy on these mice, and renal tissue stained by Hematoxyline-Eosin stain, revealed histopathological changes similar to those found in human IgA nephropathy, i.e. proliferation of mesangial cells and mesangial deposition. Further application of fluorescent staining techniques to frozen biopsy specimens also revealed mesangial depositions of IgA and C3 similar to those found in human IgA nephropathy.

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L7: Entry 9 of 33 File: USPT Mar 28, 2000

DOCUMENT-IDENTIFIER: US 6042838 A
TITLE: immunogenic compositions for mucosal administration of pneumococcal surface protein A (PspA)

Brief Summary Paragraph Right (45):
Although carriage of pneumococci can be maintained for long periods in the very young and the elderly, it is generally not a permanent condition. Carriage is much less common in older children and young adults (refs. 10, 11, 12, 57, 58). One explanation for these findings is that carriage may be interfered with by immunity (possibly mucosal immunity) to pneumococci (refs. 11, 59). The inventors have shown that most human saliva have IgA antibodies to type 23 capsular polysaccharide and phosphocholine (an immunodominant determinant of pneumococcal cell wall teichoic acids (ref. 60)). It seems likely, therefore, that human sera would also contain antibodies to other pneumococcal antigens. In the case of group A streptococci, M proteins have been shown to be required for colonization in rats, and antibodies to M proteins can protect against colonization of the throat (refs. 61, 62). In mice, the inventors have shown herein that antibody to PspA can prevent carriage of S. pneumoniae.

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50. Woogen, S. D., Ealding, W., Elson, C. O. Inhibition of murine lymphocyte proliferation by the B subunit of cholera toxin. Journal of Immunology 1987; 139: 3764–3770.

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67. Lock, R. A., Hansman, D., Paton, J. C. Comparative efficacy of autolysin and pneumolysin as immunogens protecting mice against infection by *Streptococcus pneumoniae.* Microbial Pathogenesis 1992; 12: 137–143.

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SEQUENCE LISTING

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<212> TYPE: PRT
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<400> SEQUENCE: 1

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             20                  25                  30

Gln Lys Ala Leu Asp Asp Ala Lys Ala Ala Gln Lys Lys
         35                  40                  45
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L4: Entry 1 of 11 File: USPT Jan 2, 2001

DOCUMENT-IDENTIFIER: US 6168796 B1
TITLE: Immunostimulating activity of Streptococcus pneumoniae serotype 8 oligosaccharides

Drawing Description Paragraph Right (12):
FIG. 12 shows the separation profile of pneumococcal C-substance polysaccharide hydrofluoric acid hydrolysates passed over a P-10 Bio Gel column.

Detailed Description Paragraph Right (11):
In particular, oligosaccharides prepared from cleavage of polysaccharides of S. pneumococcus strains 3, 6B, 8, 14, 19F and 23; pneumococcal C-substance; and N. meningitidis C-polysaccharide have been used in our laboratory. Preferred repeat units (R.U.) for oligosaccharides are as follows for some S. pneumococcus serotypes and pneumococcal C-substance:

Detailed Description Paragraph Right (29):
FIG. 1 shows the repeat unit structures of the polysaccharides used in the Examples of the invention. Other bacterial and viral polysaccharide are known to those of skill in the art, and may be used in the methods and compositions of the present invention. Various polysaccharides can be cleaved including, but not limited to, pneumococcal group antigen (C-substance) and capsular polysaccharides of serotypes of Streptococus pneumoniae, Neisseria meningitidis, Haemophilus influenzae, Group A Streptococcus and Group B Streptococcus.

Detailed Description Paragraph Right (64):
FIG. 11 shows the separation of an enzyme cleaved polysaccharide (serotype 8 cleaved by cellulase). The separation of C-substance oligosaccharides is shown in FIG. 12.

Other Reference Publication (30):
Jennings, H.J., et al., "Structure of the Complex Polysaccharide C-Substances from Streptococcus pneumoniae Type 1", Biochem., 19:4712-4719, 1980.

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L8: Entry 19 of 23 File: USPT Aug 27, 1991

DOCUMENT-IDENTIFIER: US 5043267 A
TITLE: Method for rapid detection of bacterial and fungal infection

Detailed Description Paragraph Right (1):
The present invention is applicable for the diagnosis of many bacterial and fungal infections in man and other mammals. The method should be useful in both human and veterinary medicine. Bacteria and fungi which can be detected by the present method are those which are both phagocytosed and at least partially degraded in the phagocyte. Many clinically significant pathogens fall within this group. Generally, the gram positive and gram negative bacteria can be detected. Specifically, gram positive bacteria belonging to the genera Staphylococcus, Streptococcus, Listeria, Clostridium, and Corynebacteria can be detected. Gram negative bacteria belonging to the family Enterobacteriaceae can be detected. Gram negative bacteria belonging to the genera Haemophilus, Bacteroides, Pseudomonas, Neisseria, and Legionella can be detected. Fungi belonging to the genera Candida, Cryptococcus, Coccidiodes and Histoplasma can be detected. Bacteria and fungi belonging to these various families and genera are known to be phagocytosed by phagocytes which comprise polymorphonuclear leukocytes (PMN), monocytes and tissue macrophages. With the passage of time, the pathogen is increasingly degraded by the phagolysosomal system. The degree and rate of phagolysosomal degradation varies depending upon the age of the organism and the nature of the pathogen. This degradative process causes the removal of characteristic surface structure com-ponents of the pathogen such as pili from Neisseria, capsular polysaccharides from Streptococcus pneumoniae, and lipoteichoic acid which is found in virtually all gram positive bacteria. As the degradative process continues, microbial cell wall and membrane integrity are altered by the action of PMN-specific degradative processes and microbial-specific autolysins. Once the innermost cell membrane is ruptured, intracellular components of the pathogen such as DNA and RNA will be released. Once those intracellular components are released, the degradative enzymes of the phagocyte begin to destroy those components also.

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L2: Entry 1 of 40 File: USPT Aug 7, 2001

DOCUMENT-IDENTIFIER: US 6270775 B1
TITLE: Streptococcal C5a peptidase vaccine

Detailed Description Paragraph Right (14):
Alternatively, the SCP can be conjugated or linked to another peptide or to a polysaccharide. For example, immunogenic proteins well-known in the art, also known as "carriers," may be employed. Useful immunogenic proteins include keyhole limpet hemocyanin (KLH), bovine serum albumin (BSA), ovalbumin, human serum albumin, human gamma globulin, chicken immunoglobulin G and bovine gamma globulin. Useful immunogenic polysaccharides include group A Streptococci polysaccharide, C-polysaccharide from group B Streptococci, or the capsular polysaccharide of Streptococci pnuemoniae. Alternatively, polysaccharides of other pathogens that are used as vaccines can be conjugated or linked to SCP.

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L2: Entry 7 of 40 File: USPT Apr 18, 2000

DOCUMENT-IDENTIFIER: US 6051415 A
TITLE: Methods and kits for stimulating production of megakaryocytes and thrombocytes

Brief Summary Paragraph Right (3):
C-reactive protein was first described by Tillett and Francis [J. Exp. Med., 52:561-71 (1930)] who observed that sera from acutely ill patients precipitated with the C-polysaccharide of the cell wall of Streptococcus pneumonia. Other investigators subsequently identified the reactive serum factor as protein, hence the designation "C-reactive protein" or "CRP." Kilpatrick et al., Immunol. Res., 10:43-53 (1991), provides a recent review of CRP.

Interaction of the C- polysaccharide of Streptococcus pneumoniae with the receptor asialo-GM1.

Sundberg-Kovamees M; Holme T; Sjogren A

Microbiology and Tumorbiology Center, Karolinska Institute, Stockholm, Sweden.

Microbial pathogenesis (ENGLAND) Oct 1996, 21 (4) p223-34, ISSN 0882-4010 Journal Code: MIC

Languages: ENGLISH

Document type: JOURNAL ARTICLE

JOURNAL ANNOUNCEMENT: 9705

Subfile: INDEX MEDICUS

C-polysaccharide (PnC) is the major surface component of pneumococci containing phosphoryl choline residues. In order to investigate the possibility that PnC can bind to glycolipid receptors present on epithelial cells we extracted carbohydrate material from a nonencapsulated strain of pneumococci. The components of the extract were separated by gel permeation chromatography. An ELISA was used for detection of fractions binding to the pneumococcal glycolipid receptor asialo GM1. These fractions were pooled and analysed by nuclear magnetic resonance spectroscopy (NMR). The 1H NMR spectrum showed good agreement with a reference spectrum of pure PnC showing that this substance was the major component. Binding of the purified PnC to asialo-GM1 was unaffected by protease K treatment. Immunoblots of the purified PnC after separation by SDS-PAGE resulted in a characteristic banding pattern. PnC could be released from pneumococci by heat treatment of whole bacteria in buffer as shown by reaction with a monoclonal antibody specific for the phosphoryl choline determinant. After separation by SDS-PAGE of the components of the heat extract, immunoblots showed the presence of bands characteristic for PnC. Eluates from the characteristic bands in the gel were shown to contain material binding to asialo-GM1. This binding was not reduced upon treatment with protease K. Pneumococci deprived of choline by cultivation in a medium containing ethanolamine as the only amino alcohol source did not bind to asialo-GM1, indicating that the phosphoryl choline residue of PnC is essential for the interaction between PnC and the glycolipid receptor. These data provide evidence that PnC containing an intact phosphoryl choline residue is a ligand responsible for binding of pneumococci to the receptor asialo-GM1.

Tags: Support, Non-U.S. Gov't

Descriptors: *G(M1) Ganglioside--Metabolism--ME; *Polysaccharides, Bacterial--Metabolism--ME; *Receptors, Cell Surface--Metabolism--ME; *Streptococcus pneumoniae; Bacterial Adhesion; Enzyme-Linked Immunosorbent Assay; Gangliosides; Immunoenzyme Techniques; Phosphorylcholine--Metabolism --ME; Streptococcus pneumoniae--Pathogenicity--PY; Structure-Activity Relationship

CAS Registry No.: 0 (polysaccharide C-substance (Streptococcus)); 0 (Gangliosides); 0 (Polysaccharides, Bacterial); 0 (Receptors, Cell Surface); 107-73-3 (Phosphorylcholine); 37758-47-7 (G(M1) Ganglioside); 71012-19-6 (asialo GM1 ganglioside)

DIALOG 2/2002 JDP

File 444:New England Journal of Med. 1985-2002/Feb W2
(c) 2002 Mass. Med. Soc.
File 457:The Lancet 1986-2000/Oct W1
(c) 2000 The Lancet, Ltd.
*File 457: Due to production changes at The Lancet, the updating of this file is delayed.
File 467:ExtraMED(tm) 2000/Dec
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20/9/59 (Item 15 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

03947720 85030848 PMID: 6436299

Detection of Neisseria meningitidis group A, Haemophilus influenzae type b, and Streptococcus pneumoniae antigens in cerebrospinal fluid specimens by antigen capture enzyme-linked immunosorbent assays.

Sippel JE; Prato CM; Girgis NI; Edwards EA

Journal of clinical microbiology (UNITED STATES) Aug 1984, 20 (2) p259-65, ISSN 0095-1137 Journal Code: HSH

Languages: ENGLISH
Document type: Journal Article
Record type: Completed
Subfile: INDEX MEDICUS

Antigen capture enzyme-linked immunosorbent assay was compared to coagglutination and counterimmunoelectrophoresis for the detection of meningococcal, Haemophilus, and pneumococcal antigens. Enzyme-linked immunosorbent assay detected 1 ng of **purified** meningococcal and Haemophilus **polysaccharides** per ml and 5 ng of pneumococcal **polysaccharide** per ml; coagglutination detected 20, 25, and 30 ng/ml, respectively, of these **polysaccharides** ; and counterimmunoelectrophoresis detected 10, 50, and 60 ng/ml. Double-antibody sandwich-antiglobulin enzyme-linked immunosorbent assays, which employed antibodies produced in

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West DIALOG 2/8/02 KOP

Freeform Search

Database: US Patents Full-Text Database
US Pre-Grant Publication Full-Text Database
JPO Abstracts Database
EPO Abstracts Database
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IBM Technical Disclosure Bulletins

Term: (pneumonia$. or alphahemolytic or alpha-hemolytic or alpha-hemoly$ or phosphorylcholine or spneumonia$ or (strep same pneumonia)).clm.

Display: 50 Documents in Display Format: CIT Starting with Number 1

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Main Menu | Show S Numbers | Edit S Numbers | Preferences | Cases

Search History

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L4	c-substance or substance-c	11	L4
L5	('6168796'| '6132723'| '5916571'| '5866132'| '5855901'| '5773007'| '5807553')[PN]	7	L5
L6	(pneumoc$ or pneumoni$) same wall same polysaccharide	45	L6
L7	l6 not l5 not l4 not l3 not l2	33	L7
L8	$teichoic same (pneumoc$ or pneumoni$)	23	L8
L9	$teichoic.clm.	22	L9

END OF SEARCH HISTORY

WEST

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L9: Entry 15 of 22 File: USPT May 31, 1994

DOCUMENT-IDENTIFIER: US 5316911 A
TITLE: Method of determining the presence of endotoxin in a sample

CLAIMS:

1. A method of determining the presence of an endotoxin or an endotoxin-like material in a sample, wherein the endotoxin-like material is selected from the group consisting of lipopolysaccharide, oligolipopolysaccharide, lipid A, glucans, peptidoglycan, lipoteichoic acid, lipoglycans and synthetic lipid A, the method comprising:

(a) incubating a sample with a component which is from horseshoe crab amoebocyte lysate, hemolymph or a synthetic analogue thereof having substantially the same reactivity with an endotoxin or endotoxin-like material as a component occurring naturally in horseshoe crab amoebocyte lysate or haemolymph, whereby the properties of said component are altered if any endotoxin or endotoxin-like material is present in the sample so that no reaction with an antibody raised against or directed substantially only against said component or an immunological determinant thereof will take place,

(b) reacting the incubated mixture of said sample and said component from step (a) with a monoclonal antibody raised against or directed substantially only against said component or an immunological determinant thereof whereby the antibody is bound to any of said component present in the mixture, and

(c) determining the presence of any endotoxin or endotoxin-like material in the sample by detecting any bound antibody in the reaction mixture resulting from step (b), the detection of decreasing amounts of bound antibody showing the presence of an endotoxin or endotoxin-like material in the sample;

with the proviso that any of said component present after the incubation of the sample in step (a) is coupled to a solid support, or

that said antibody is coupled to a solid support or to a bridging molecule which is coupled to a solid support, or

that any endotoxin or endotoxin-like material present in the sample is coupled to a solid support.

2. A method of determining the presence of an endotoxin or endotoxin-like material in a sample, wherein the endotoxin-like material is selected from the group consisting of lipopolysaccharide, oligolipopolysaccharide, lipid A, glucans, peptidoglycan, lipoteichoic acid, lipoglycans and synthetic lipid A, the method comprising:

(a) incubating a sample with a component which is from horseshoe crab amoebocyte lysate, hemolymph or a synthetic analogue thereof having substantially the same reactivity with an endotoxin or endotoxin-like material as a component occurring naturally in horseshoe crab amoebocyte lysate or haemolymph, whereby the properties of said component are altered if any endotoxin or endotoxin-like material is present in the sample so that a reaction product of said component with an endotoxin or endotoxin-like material in the sample will react with an antibody raised against or directed substantially only against said reaction product or an immunological determinant thereof,

(b) reacting the incubated mixture of said sample and said component resulting from step (a) with a monoclonal antibody raised against or directed substantially only against said reaction product or an immunological determinant thereof, whereby the antibody is bound to any of said reaction product present in the mixture, and

(c) determining the presence of any endotoxin or endotoxin-like material in the sample by detecting any bound antibody in the reaction mixture resulting from step (b), the detection of increasing amounts of bound antibody showing the presence of an endotoxin or endotoxin-like material in the sample;

with the proviso that any of said reaction product present after the incubation of the sample in step (a) is coupled to a solid support, or

that said antibody is coupled to a solid support or to a bridging molecule which is coupled to a solid support, or

that any endotoxin-like material present in the sample is coupled to a solid support.

WEST

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L4: Entry 26 of 37 File: USPT Jun 13, 1995

DOCUMENT-IDENTIFIER: US 5424287 A
TITLE: Extract of bacterial macromolecules, a process for its preparation and a pharmaceutical composition containing the same

CLAIMS:

1. A modified bacterial protein-based extract comprising a mixture of extracted acidic bacterial polyanions having an isoelectric point of 2.5 to 5.5, and wherein the sum of amino acid constituents represents at least 50% of said extract, said extract having been prepared by carrying out an alkaline extraction of a bacterial suspension in the presence of a diluted aqueous source of hydroxyl ions at a stable pH ranging between 11 and 13, followed by a purification of the extract, wherein said bacterial suspension comprises at least one bacterial strain selected from the group consisting of Staphylococcus aureus, strains I-049, I-050, I-051, I-052, I-053 and I-054; Streptococcus viridans, strains I-046, I-047 and I-048; Neisseria catarrhalis strain I-045; Hemophilus influenzae serotype b NCTC 8467; Diplococcus pneumoniae serotypes 1, 2, 3 and 47, NCTC 7465, 7466, 7978 and 10319, respectively; Klebsiella pneumoniae strains NCTC 204 and 5056; Klebsiella ozaenae NCTC 5050; Streptococcus pyogenes serogroup A NCTC 8191; Neisseria catarrhalis strains NCTC 3622 and 3625, and E. coli I-1147.

4. A process for the preparation of a modified bacterial protein-based extract which comprises cultivating bacteria in a liquid medium, suspending said bacteria in an aqueous medium so as to obtain a bacterial suspension, carrying out an alkaline extraction on said bacterial suspension, and thereafter a purification so as to obtain said modified bacterial protein-based extract, said alkaline extraction being carried out in the presence of a diluted aqueous source of OH ions at a stable pH ranging between 11 and 13, and a decrease in pH during said extract not exceeding 0.4, wherein the cultivated bacteria comprise at least one bacterial strain selected from the group consisting of Staphylococcus aureus, strains I-049, I-050, I-051, I-052, I-053 and I-054; Streptococcus viridans, strains I-046, I-047 and I-048; Neisseria catarrhalis strain I-045; Hemophilus influenzae serotype b NCTC 8467; Diplococcus pneumoniae serotypes 1, 2, 3 and 47, NCTC 7465, 7466, 7978 and 10319, respectively; Klebsiella pneumoniae strains NCTC 204 and 5056; Klebsiella ozaenae NCTC 5050; Streptococcus pyogenes serogroup A NCTC 8191; Neisseria catarrhalis strains NCTC 3622 and 3625, and E. coli I-1147.

7. A process according to claim 4, wherein after purification, the LPS content of the modified bacterial protein-based extract is less than 2.times.10.sup.-3 %, said purification including one or several steps of ultrafiltration, treatment with a non-ionic surfactant, chromatography, sterile filtration, and lyophilization.

WEST Search History

DATE: Friday, February 08, 2002

Set Name side by side	Query	Hit Count	Set Name result set
DB=USPT,PGPB,JPAB,EPAB,DWPI,TDBD; PLUR=YES; OP=AND			
L1	(strep or streptoco$).clm. and pneumon$.clm.	299	L1
L2	L1	299	L2
L3	(device or apparatus or immunochromatograph$ or immuno-chromatograph$ or chromatograph$ or lateral or flow or flowing or strip or path or nitocellulose or test or stick).clm.	1368196	L3
L4	l3 and l1	37	L4

END OF SEARCH HISTORY

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  File  73:EMBASE  1974-2002/Feb W1
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see Help News73.
  File  77:Conference Papers Index  1973-2002/Jan
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  File  91:MANTIS(TM)  1880-2001/Oct
         2001 (c) Action Potential
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*File  94: There is no data missing. UDs have been adjusted to reflect
 the current months data. See Help News94 for details.
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         (c) 2002 The HW Wilson Co.
  File 135:NewsRx Weekly Reports  1995-2002/Feb W2
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         (c) 2002 INIST/CNRS
  File 149:TGG Health&Wellness DB(SM)  1976-2002/Jan W4
         (c) 2002 The Gale Group
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  File 156:ToxFile  1966-2001/Oct W3
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         (c) format only 2001 Dialog Corporation
*File 159: File temporarily is not updating.  Updating expected to
resume in March 2002.
  File 162:CAB HEALTH  1983-2001/Dec
         (c) 2002 CAB INTERNATIONAL
*File 162: Truncating CC codes is recommended for full retrieval.
See Help News162 for details.
  File 164:Allied & Complementary Medicine  1984-2002/Mar
         (c) 2002 BLHCIS
  File 172:EMBASE Alert  2002/Feb W1
         (c) 2002 Elsevier Science B.V.
  File 266:FEDRIP  2002/Dec
        Comp & dist by NTIS, Intl Copyright All Rights Res
  File 369:New Scientist  1994-2002/Jan W3
         (c) 2002 Reed Business Information Ltd.
  File 370:Science  1996-1999/Jul W3
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*File 370: This file is closed (no updates). Use File 47 for more current
information.
  File 399:CA SEARCH(R)  1967-2002/UD=13606
         (c) 2002 AMERICAN CHEMICAL SOCIETY
*File 399: Use is subject to the terms of your user/customer agreement.
RANK charge added; see HELP RATES 399.
  File 434:SciSearch(R) Cited Ref Sci  1974-1989/Dec
         (c) 1998 Inst for Sci Info
  File 442:AMA  Journals  1982-2002/Feb B2
         (c)2002 Amer Med Assn -FARS/DARS apply
*File 442: UDs have been adjusted to reflect the current months
data. See Help News442 for details. PY,PD sort temporarily do not work.
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selected populations at risk for serious pneumococcal infection for whom vaccination is currently recommended and to assess duration of protection after vaccination. DESIGN--Vaccine efficacy was estimated using indirect cohort analysis to compare the proportion of pneumococcal infections caused by serotypes included in the vaccines of vaccinated and unvaccinated persons who were identified during 14 years of national surveillance. SETTING--Hospital laboratories in the United States that submitted pneumococcal isolates to the Centers for Disease Control and Prevention between May 1978 and April 1992. PARTICIPANTS--A total of 2837 persons older than 5 years who had pneumococcus isolated from blood or cerebrospinal fluid. RESULTS--Overall efficacy for preventing infection caused by serotypes included in the vaccine was 57% (95% confidence interval [CI], 45% to 66%). Efficacy among persons with diabetes mellitus was 84% (95% CI, 50% to 95%); with coronary vascular disease, 73% (95% CI, 23% to 90%); with congestive heart failure, 69% (95% CI, 17% to 88%); with chronic pulmonary diseases, 65% (95% CI, 26% to 83%); and with anatomic asplenia, 77% (95% CI, 14% to 95%). Efficacy was not documented for patients with alcoholism or cirrhosis, sickle cell disease, chronic renal failure, lymphoma, leukemia, or multiple myeloma, although sample sizes were small for these groups. Efficacy for immunocompetent persons older than 65 years was 75% (95% CI, 57% to 85%). Efficacy did not decline with increasing interval after vaccination: 5 to 8 years after vaccination it was 71% (95% CI, 24% to 89%), and 9 years or more after vaccination it was 80% (95% CI, 16% to 95%). CONCLUSIONS--Intensified efforts to improve pneumococcal vaccine coverage among certain populations for whom vaccination is currently recommended is indicated, but universal revaccination is not warranted at this time.

Tags: Female; Human; Male

Descriptors: Bacterial Vaccines; *Pneumococcal Infections--prevention and control--PC; * **Streptococcus pneumoniae** --classification--CL; *Vaccination ; Adolescence; Adult; Aged; Aged, 80 and over; Bacterial Vaccines --standards--ST; Child; Child, Preschool; Cohort Studies; Drug Evaluation; Middle Age; Pneumococcal Infections--epidemiology--EP; Pneumococcal Infections--microbiology--MI; Pneumococcal Vaccines; Population Surveillance; Risk Factors; Serotyping; United States--epidemiology--EP; Vaccination--standards--ST

CAS Registry No.: 0 (Bacterial Vaccines); 0 (Pneumococcal Vaccines)

Record Date Created: 19931101

26/9/144 (Item 15 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

08064892 90335859 PMID: 2379195

A novel method for the determination **of the stereochemistry of pyruvate acetal substituents applied to the capsular** polysaccharide **from Streptococcus pneumoniae type 4.**

Jones C

National Institute for Biological Standards and Control, Potters Bar, Herts, Great Britain.

Carbohydrate research (NETHERLANDS) May 1 1990, 198 (2) p353-7, ISSN 0008-6215 Journal Code: CNY

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: INDEX MEDICUS

Descriptors: Polysaccharides, Bacterial; *Pyruvates; * **Streptococcus pneumoniae** ; Carbohydrate Conformation; Carbohydrate Sequence; Chemistry; Computer Simulation; Magnetic Resonance Spectroscopy; Models, Biological; Molecular Sequence Data; Stereoisomerism; **Streptococcus pneumoniae** --analysis--AN

CAS Registry No.: 0 (Polysaccharides, Bacterial); 0 (Pyruvates); 0 (pyruvic acid acetal)

Record Date Created: 19900911

26/9/145 (Item 16 from file: 155)

such O-acetylated polysaccharides are used as components of vaccines. This is the case in a polysaccharide conjugate vaccine under development for treatment of diseases caused by Streptococcus pneumoniae. An ion chromatographic (IC) method utilizing suppressed conductivity detection (SCD) was developed to quantitatively measure O-acetate groups in the capsular polysaccharides from S. pneumoniae types 18C and 9V following hydrolytic release of O-acetate from the polysaccharide backbones using 2 mM sodium hydroxide. IC was carried out using an OmniPac PAX-500 column and 0.98 mM NaOH in 2% methanol as the mobile phase. Capillary ion electrophoresis (CIE) with indirect photometric detection was evaluated as an alternative method. The CIE method utilized a 72 cm x 75 microns I.D. fused-silica capillary and an electrolyte composed of 5 mM potassium hydrogenphthalate, 0.5 mM tetradecyltrimethylammonium bromide, and 2 mM sodium tetraborate, pH 5.88. A comparison of CIE and IC-SCD in terms of reproducibility, accuracy, linearity, and sensitivity will be presented.

Descriptors: *Acetates--analysis--AN; *Chromatography, Liquid--methods --MT; *Electrophoresis--methods--MT; *Polysaccharides, Bacterial--chemistry --CH; Carbohydrate Sequence; Hydrolysis; Ions; Molecular Sequence Data; Reproducibility of Results; Spectrophotometry, Ultraviolet; **Streptococcus pneumoniae** --chemistry--CH

CAS Registry No.: 0 (Acetates); 0 (Ions); 0 (Polysaccharides, Bacterial)

Record Date Created: 19941223

26/9/142 (Item 13 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

08100666 94221157 PMID: 8167732

Antibody responses to pneumococcal capsular polysaccharide : **what is being** measured ?

Goldblatt D; Jadresic LP; Levinsky RJ; Turner MW

Molecular Immunology Unit, Institute of Child Health, London, UK.

Immunodeficiency (SWITZERLAND) 1993, 4 (1-4) p47-50, ISSN 1067-795X Journal Code: BSP

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: INDEX MEDICUS

Tags: Human

Descriptors: Antibodies, Bacterial--biosynthesis--BI; *Bacterial Vaccines --immunology--IM; *Polysaccharides, Bacterial--immunology--IM; * **Streptococcus pneumoniae** --immunology--IM; Adolescence; Antibodies, Bacterial--blood--BL; Antibody Specificity; Cell Wall--immunology--IM; Child; Child, Preschool; IgG--biosynthesis--BI; IgG--blood--BL; Infant; Pneumococcal Vaccines; Vaccination

CAS Registry No.: 0 (Antibodies, Bacterial); 0 (Bacterial Vaccines); 0 (IgG); 0 (Pneumococcal Vaccines); 0 (Polysaccharides, Bacterial)

Record Date Created: 19940527

26/9/143 (Item 14 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

08096728 94017047 PMID: 8411526

Pneumococcal polysaccharide **vaccine efficacy. An** evaluation **of current recommendations.**

Butler JC; Breiman RF; Campbell JF; Lipman HB; Broome CV; Facklam RR

Respiratory Diseases Branch, Division of Bacterial and Mycotic Diseases, Centers for Disease Control and Prevention, Atlanta, GA 30333.

JAMA (UNITED STATES) Oct 20 1993, 270 (15) p1826-31, ISSN 0098-7484 Journal Code: KFR

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: AIM; INDEX MEDICUS

OBJECTIVE--To determine pneumococcal polysaccharide vaccine efficacy in

two animal species, differentiated 100% of the cerebrospinal fluid (CSF) specimens from meningococcal meningitis patients and 95% of the CSFs from Haemophilus patients from heterologous control CSFs. Double-antibody sandwich procedures, which use the same antiserum preparation for coating the wells of microtiter plates and for alkaline phosphatase-conjugated **immunoglobulin** , differentiated meningococcal CSFs from control specimens but were unable to effectively differentiate the Haemophilus or pneumococcal specimens from control CSFs. Coagglutination detected specific antigen in 92% of the meningococcal CSFs, 80% of the Haemophilus CSFs, and 92% of the pneumococcal specimens. The comparable percentages for counterimmunoelectrophoresis were 76, 95, and 71%.

Tags: Comparative Study; Human; Support, U.S. Gov't, Non-P.H.S.

Descriptors: Antigens, Bacterial--cerebrospinal fluid--CF; *Enzyme-Linked Immunosorbent Assay; *Haemophilus influenzae--immunology--IM; *Immunoenzyme Techniques; *Meningitis--diagnosis--DI; *Neisseria meningitidis--immunology --IM; * **Streptococcus pneumoniae** --immunology--IM; Agglutination Tests; Counterimmunoelectrophoresis; Meningitis--cerebrospinal fluid--CF; Meningitis--immunology--IM; Meningitis, Haemophilus--cerebrospinal fluid --CF; Meningitis, Haemophilus--diagnosis--DI; Meningitis, Haemophilus --immunology--IM; Meningitis, Meningococcal--cerebrospinal fluid--CF; Meningitis, Meningococcal--diagnosis--DI; Meningitis, Meningococcal --immunology--IM; Meningitis, Pneumococcal--cerebrospinal fluid--CF; Meningitis, Pneumococcal--diagnosis--DI; Meningitis, Pneumococcal --immunology--IM

CAS Registry No.: 0 (Antigens, Bacterial)

Record Date Created: 19841213

20/9/46 (Item 2 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

09739428 98180438 PMID: 9521143

Evaluation of previously assigned antibody concentrations in pneumococcal polysaccharide **reference serum 89SF by the method of cross-standardization.**

Concepcion N; Frasch CE

Division of Bacterial Products, Center for Biological Evaluation and Research, Bethesda, Maryland, USA.

Clinical and diagnostic laboratory immunology (UNITED STATES) Mar 1998, 5 (2) p199-204, ISSN 1071-412X Journal Code: CB7

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: INDEX MEDICUS

An enzyme-linked immunosorbent assay (ELISA) and the antibody concentrations assigned to different pneumococcal capsular **polysaccharide** types were used to estimate concentrations of antibody to additional pneumococcal types in reference serum 89SF and to confirm assigned antibody values. This was possible because the slopes of curves of antibody binding to all **polysaccharide** types evaluated (1, 3, 4, 5, 6B, 7F, 9V, 14, 18C, 19F, and 23F) were similar. The point estimates for total anti-pneumococcal antibody and **immunoglobulin** G (IgG) antibody determined by cross-standardization by an ELISA based on use of methylated human serum albumin (mHSA) to improve the efficiency of **polysaccharide** binding to the ELISA plate differed by less than 40% from those reported by Quataert et al. (Clin. Diagn. Lab. Immunol. 2:590-597, 1995) for types 1, 4, 6B, 7F, 9V, 14, 18C, and 23F. However, large differences were found between the assigned values and those obtained by our mHSA ELISA for types 3 and 19F. The mHSA ELISA and the direct **polysaccharide** coat ELISA may not measure antibodies to the same epitopes on **polysaccharides** of types 3 and 19F. The functional importance of these different antibody specificities is being investigated. We have thus confirmed the assigned IgG antibody values for most types by a different method and have extended antibody assignments to several additional types.

Tags: Human

Descriptors: Antibodies, Bacterial--immunology--IM; *Enzyme-Linked Immunosorbent Assay--methods--MT; * **Polysaccharides** , Bacterial--immunology

hapten antibody; *immunological tolerance
theoretical study; mouse; model; in vitro study
MEDICAL TERMS (UNCONTROLLED): hapten derivative; trinitrophenyl derivative
SECTION HEADINGS:
026 Immunology, Serology and Transplantation
004 Microbiology: Bacteriology, Mycology, Parasitology and Virology

20/9/37 (Item 30 from file: 73)
DIALOG(R)File 73:EMBASE

00139001 EMBASE No: 1974129114
Fractionation of antibodies to the pneumococcal polysaccharides **by** affinity chromatography
Cheng W.C.; Fraser K.J.; Haber E.
Card. Unit, Massachusetts Gen. Hosp., Boston, Mass. 02114 United States
Journal of Immunology (J. IMMUNOL.) 1973, 111/6 (1677-1689)
CODEN: JOIMA
DOCUMENT TYPE: Journal
LANGUAGE: ENGLISH

Antibodies to pneumococcal **polysaccharides** type III and VIII were fractionated by use of cross reacting immunoadsorbents and gradient elution with cellobiose and NaCl. The **polysaccharides** were first derivatized with p nitrobenzyl bromide. After reduction of the nitro group, they were linked to bovine gamma globulin by diazotization and coupling. The protein **polysaccharide** complex was then linked to activated sepharose to form an immunoadsorbent. In other experiments, immunoadsorbents were synthesized from **polysaccharides** which had first been either subjected to aminoethylation or to amidation. In some instances, partial acid hydrolysis was carried out on the completed immunoadsorbent. These adsorbents had a high capacity for antibody. By use of several different immunoadsorbents, as well as varying elution programs with cellobiose and NaCl, complex antibody mixtures could be resolved with the isolation of components of unique electrophoretic mobility. Light chains isolated from these preparations were shown to have a single amino acid sequence at the N terminus. It is apparent that many antibodies to differing determinants on the relatively simple **polysaccharide** antigens may be elicited and separated on the basis of these properties.

DRUG DESCRIPTORS:
*antibody; *antiserum; * **immunoglobulin** light chain; * **polysaccharide**
MEDICAL DESCRIPTORS:
*antigen antibody reaction; * **chromatography** ; * **streptococcus pneumoniae** ; *drug determination; *immunoadsorbent; *pharmacology
theoretical study; in vitro study; methodology; drug analysis
MEDICAL TERMS (UNCONTROLLED): **immunoglobulin purification** ; **immunoglobulin** g heavy chain; **polysaccharide** antibody
SECTION HEADINGS:
037 Drug Literature Index
026 Immunology, Serology and Transplantation
029 Clinical and Experimental Biochemistry
030 Clinical and Experimental Pharmacology

20/9/39 (Item 2 from file: 94)
DIALOG(R)File 94:JICST-EPlus

02378187 JICST ACCESSION NUMBER: 95A0589846 FILE SEGMENT: JICST-E
Characterization of Rainbow Trout C- Polysaccharide **Binding Proteins.**
MURATA M (1); ONUMA M (1); KODAMA H (2)
(1) Hokkaido Univ., Sapporo, JPN; (2) Univ. Osaka Prefecture, Osaka, JPN
J Vet Med Sci, 1995, VOL.57,NO.3, PAGE.419-425, FIG.6, TBL.2, REF.38
JOURNAL NUMBER: F0905ABI ISSN NO: 0916-7250
UNIVERSAL DECIMAL CLASSIFICATION: 591.11.05 639.21/.23 577.112.012

LANGUAGE: English COUNTRY OF PUBLICATION: Japan
DOCUMENT TYPE: Journal
ARTICLE TYPE: Original paper
MEDIA TYPE: Printed Publication
ABSTRACT: Two proteins were isolated from rainbow trout sera by **affinity chromatography** using C- **polysaccharide** -Sepharose 4B column. One was appropriate to the trout C-reactive protein(CRP) that was reported previously (Murai et al. 1990. Dev. Comp. Immunol. 14: 49-58). The other was a newly found protein that had apparent molecular weight of 135,000 on native gradient polyacrylamide gel electrophoresis, and isoelectric points of 5.2-5.8. The N-terminal sequence (twenty amino acids) of the newly found protein was similar to CRPs from other species (e.g. 44% homology with plaice CRP). On electron microscope, the newly found protein was observed as pentagonal symmetry structure. (author abst.)
DESCRIPTORS: Oncorhynchus mykiss; serum protein; C-reactive protein; amino acid sequence; ion exchange **chromatography** ; high performance liquid **chromatography** ; electron microscopy; **Streptococcus pneumoniae** ; gel electrophoresis
BROADER DESCRIPTORS: Salmonidae; Salmoniformes; Osteichthyes; Pisces; Vertebrata; animal; blood protein; blood component; component; animal protein; protein; **globulin** ; primary structure; structure; sequence and arrangement; molecular structure; liquid **chromatography** ; **chromatography** ; microscopy; observation and view; Streptococcus; Streptococcaceae; bacterium; microorganism; electrophoresis
CLASSIFICATION CODE(S): EJ03010L; FH02020K; EB03020Y

20/9/48 (Item 4 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

09528562 97220488 PMID: 9067650
Characterization of specific immunoglobulin **G (IgG) and its subclasses (IgG1 and IgG2) against the 23-valent pneumococcal vaccine in a healthy adult population: proposal for response criteria.**
Rodrigo MJ; Miravitlles M; Cruz MJ; de Gracia J; Vendrell M; Pascual C; Morell F
Department of Biochemistry (Immunology Unit), Hospital General Vall d'Hebron, Barcelona, Spain.
Clinical and diagnostic laboratory immunology (UNITED STATES) Mar 1997, 4 (2) p168-72, ISSN 1071-412X Journal Code: CB7
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
Subfile: INDEX MEDICUS
The aim of the study was to standardize an enzyme-linked immunosorbent assay (ELISA) method for the quantification of **immunoglobulin** G (IgG) and its subclasses (IgG1 and IgG2) against the 23-valent pneumococcal vaccine and to establish the criteria for a normal response to the vaccine. Forty healthy individuals (20 women and 20 men; mean age, 29 years) were studied. All were vaccinated with the 23-valent pneumococcal vaccine; blood samples were drawn just prior to and 3 weeks after immunization. Quantification of specific IgG and its subclasses was performed by an ELISA with the vaccine as the antigen. The linearity of the ELISA method was demonstrated by the similar slopes of the linear regression lines generated from the titration of sera with different antibody concentrations. The specificity of the antibodies against the vaccine was demonstrated by (i) an absorption test with pneumococcal vaccine, (ii) a cross-reactivity experiment with Haemophilus influenzae type b **polysaccharide** , and (iii) **affinity chromatography** with protein A-Sepharose. Response to the vaccine was defined by using the lower level of the 90% probability interval (one-tailed) for postimmunization-specific IgG, IgG1, and IgG2. By using this cutoff, responders were considered to be those with an absolute increase in antibody titers higher than 395 arbitrary units/ml for IgG, 0.350 A450 units for IgG1, and 0.314 A450 units for IgG2. Overall, 20 (50%) subjects had IgG, IgG1, and IgG2 responses, 9 (22.5%) had IgG and IgG2 responses, 4 (10%) had IgG1 responses, 3 (7.5%) had IgG and IgG1 responses,

and 4 (10%) were nonresponders. Ninety percent of our population responded to the 23-valent pneumococcal vaccine. Up to 10% of healthy individuals may respond to an IgG subclass without significant increases in total IgG titers. The ELISA method that is described may be useful for evaluating the specific antibody response against **polysaccharides** .

Tags: Female; Human; Male; Support, Non-U.S. Gov't

Descriptors: Antibodies, Bacterial--blood--BL; *Bacterial Vaccines --immunology--IM; *Enzyme-Linked Immunosorbent Assay--standards--ST; *IgG --blood--BL; * **Streptococcus pneumoniae** --immunology--IM; Adult; Antibody Specificity; Cross Reactions; Enzyme-Linked Immunosorbent Assay--methods --MT; Immunosorbent Techniques; Middle Age; Pneumococcal Vaccines; Reference Standards

CAS Registry No.: 0 (Antibodies, Bacterial); 0 (Bacterial Vaccines); 0 (IgG); 0 (Pneumococcal Vaccines)

Record Date Created: 19970603

20/9/49 (Item 5 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

08820564 96127917 PMID: 8527949

Antibody response in bronchoalveolar lavage and serum of rats after aerosol immunization of the airways with a well-adhering and a poorly adhering strain of Streptococcus pneumoniae.

Arva E; Dahlgren U; Lock R; Andersson B

Department of Clinical Immunology, University of Goteborg, Sweden.

International archives of allergy and immunology (SWITZERLAND) Jan 1996 , 109 (1) p35-43, ISSN 1018-2438 Journal Code: BJ7

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: INDEX MEDICUS

This study describes the antibody response to two bacterial antigens, pneumolysin toxoid (PL) and **purified** pneumococcal capsular **polysaccharide** (PPS) 19F, in bronchoalveolar lavage (BAL) and in serum in rats after aerosol immunization with whole killed Streptococcus pneumoniae. To study the importance of bacterial adherence for antibody formation, one well-adhering and one poorly adhering strain of S. pneumoniae was used. The results show local specific anti-PPS 19F IgA, IgM and IgG antibody activities after aerosol immunization. Anti-PL antibody activity in all three **immunoglobulin** classes was found, although the anti-PL activity was lower than the anti-PPS 19F antibody activity. The IgA anti-PPS 19F antibody activity in BAL after immunization with the well-adhering strain was higher than with the poorly adhering strain. We conclude that aerosol immunization with S. pneumoniae induces a local, specific antibody production in the lung of the rat.

Tags: Animal; Human; Male; Support, Non-U.S. Gov't

Descriptors: Antibodies, Bacterial--analysis--AN; *Bronchoalveolar Lavage Fluid--immunology--IM; *Immunization--methods--MT; *Lung--metabolism--ME; * **Streptococcus pneumoniae** --immunology--IM; Aerosols; Antigens, Bacterial --immunology--IM; Bacterial Adhesion--physiology--PH; IgA--analysis--AN; IgG--analysis--AN; IgM--analysis--AN; Immunophenotyping; Nebulizers and Vaporizers; Pneumococcal Infections--immunology--IM; Rats; Rats, Wistar; **Streptococcus pneumoniae** --classification--CL; **Streptococcus pneumoniae** --metabolism--ME

CAS Registry No.: 0 (Aerosols); 0 (Antibodies, Bacterial); 0 (Antigens, Bacterial); 0 (IgA); 0 (IgG); 0 (IgM)

Record Date Created: 19960130

20/9/51 (Item 7 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

08206002 94323719 PMID: 8047849

The importance of G1m and 2 allotypes for the IgG2 antibody levels and avidity against pneumococcal polysaccharide **type 1 within mono- and dizygotic twin-pairs.**

Konradsen HB; Oxelius VA; Hahn-Zoric M; Hanson LA
Department of Bacteriology, Statens Seruminstitut, Copenhagen, Denmark.
Scandinavian journal of immunology (ENGLAND) Aug 1994, 40 (2) p251-6
, ISSN 0300-9475 Journal Code: UCW
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
Subfile: INDEX MEDICUS

Eighty-two mono- or dizygotic Caucasian twins vaccinated with a 23-valent pneumococcal vaccine, who had previously had their IgG2 antibody levels to pneumococcus type 1 determined before and after vaccination, were included in this study. Their IgG2 antibody levels were related to their G1m and G2m allotypes/phenotypes and their Gm amounts. Eight different Gm phenotypes were found and characteristically IgG2 antibody levels were related to them. G2m (n) homozygotic twins had significantly higher IgG2 levels than heterozygotic twins who had significantly higher levels than G2m (-n) homozygotic twins ($P < 0.05$). The G1m allotype, on the other hand was without influence on the IgG2 levels and so were the Gm amounts among G2m (n) heterozygotic twins. The IgG2 antibody avidities were not related to Gm allotypes but significantly correlated to IgG2 levels ($P = 0.05$). Finally, a highly significant intra-pair correlation was found for avidity in the monozygotic twins supporting a genetic regulation of avidity ($P < 0.002$). These results may explain our earlier findings that IgG2 antibody levels after pneumococcal vaccination are significantly more closely correlated within mono- compared to dizygotic twins.

Tags: Female; Human; Male
Descriptors: Antibodies, Bacterial--genetics--GE; * **Immunoglobulin** Gm Allotypes--genetics--GE; *Twins, Dizygotic--genetics--GE; *Twins, Monozygotic--genetics--GE; Adult; Antibodies, Bacterial--blood--BL; Antibody **Affinity** --genetics--GE; Enzyme-Linked Immunosorbent Assay; IgG --blood--BL; Phenotype; **Polysaccharides** , Bacterial--immunology--IM; **Streptococcus pneumoniae** --immunology--IM
CAS Registry No.: 0 (Antibodies, Bacterial); 0 (IgG); 0 (Immunoglobulin Gm Allotypes); 0 (Polysaccharides, Bacterial)
Record Date Created: 19940830

20/9/53 (Item 9 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

07058968 93322405 PMID: 8331143
Separation of polysaccharide **-specific human** immunoglobulin **G subclasses using a protein A superose column with a pH gradient elution system.**
Leibl H; Erber W; Eibl MM; Mannhalter JW
Department of Immunological Research, Immuno AG, Vienna, Austria.
Journal of chromatography (NETHERLANDS) Jun 4 1993, 639 (1) p51-6,
ISSN 0021-9673 Journal Code: HQF
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
Subfile: INDEX MEDICUS

Protein A Superose was employed to separate **affinity - purified** anticarbohydrate antibodies according to **immunoglobulin** G (IgG) subclass. Separation was achieved with a novel buffer system (disodium phosphate-sodium acetate-sodium chloride-glycine), which allowed the generation of a linear pH gradient from pH 8 to 3. Protein A-bound anti-carbohydrate antibodies were eluted as three peaks, two of them mainly containing IgG2 and one consisting of highly enriched IgG1. The enriched antibody preparations retained their functional activity. This separation procedure can be considered as an alternative to the preparation of IgG subclasses with subclass-specific monoclonal antibodies and could be employed whenever contamination with immune complexes has to be avoided.

Tags: Human
Descriptors: **Chromatography** , **Affinity** --methods--MT; *IgG--isolation and **purification** --IP; * **Polysaccharides** , Bacterial--immunology--IM; *Staphylococcal Protein A--chemistry--CH; Antibodies, Bacterial--immunology

--IM; Antibodies, Bacterial--isolation and **purification** --IP; Antibody Specificity; Enzyme-Linked Immunosorbent Assay; Haemophilus influenzae --immunology--IM; Hydrogen-Ion Concentration; IgG--classification--CL; IgG --immunology--IM; Spectrophotometry, Ultraviolet; **Streptococcus pneumoniae** --immunology--IM
CAS Registry No.: 0 (Antibodies, Bacterial); 0 (IgG); 0 (Polysaccharides, Bacterial); 0 (Staphylococcal Protein A)
Record Date Created: 19930817

20/9/57 (Item 13 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

04451336 82264214 PMID: 6809623
Comparison of the induction of immunoglobulin **M and G antibodies in mice with** purified **pneumococcal type 3 and meningococcal group C** polysaccharides **and their protein conjugates.**
Beuvery EC; van Rossum F; Nagel J
Infection and immunity (UNITED STATES) Jul 1982, 37 (1) p15-22, ISSN 0019-9567 Journal Code: GO7
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
Subfile: INDEX MEDICUS
The nature and kinetics of the serum antibody response to pneumococcal type 3 and meningococcal group C **polysaccharides** and their protein conjugates were studied in mice. Bovine serum albumin and diphtheria and tetanus toxoids were used as carrier proteins. The **purified polysaccharides** induced only **immunoglobulin** M (IgM) antibodies in thymus-bearing as well as congenic athymic (nude) mice. The **polysaccharides** covalently conjugated to proteins produced IgM and IgG antibodies in normal mice, but only IgM antibodies in nude mice. A second dose of the **polysaccharide** -protein conjugates resulted in a booster effect in the IgG response to the **polysaccharides** . Moreover, memory B-cells, generated after a primary injection with the **polysaccharide** -protein conjugates, could be triggered to the production of IgG antibodies after a second injection with the pure **polysaccharides** alone. These data indicate that the antibody response to the pure **polysaccharides** is thymus independent and that this response can be changed into a thymus-dependent response by covalent conjugation of the **polysaccharide** to a thymus-dependent protein.
Tags: Animal; Comparative Study
Descriptors: Antibodies, Bacterial--biosynthesis--BI; *Neisseria meningitidis--immunology--IM; * **Polysaccharides** , Bacterial--immunology--IM ; * **Streptococcus pneumoniae** --immunology--IM; B-Lymphocytes--immunology --IM; Diphtheria Toxoid; IgG--biosynthesis--BI; IgM--biosynthesis--BI; Mice ; Mice, Nude; Serum Albumin, Bovine; T-Lymphocytes--immunology--IM; Tetanus Toxoid
CAS Registry No.: 0 (Antibodies, Bacterial); 0 (Diphtheria Toxoid); 0 (IgG); 0 (IgM); 0 (Polysaccharides, Bacterial); 0 (Serum Albumin, Bovine); 0 (Tetanus Toxoid)
Record Date Created: 19821029

20/9/65 (Item 21 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

02711329 79171891 PMID: 35462
Preparation of an active Fd fragment by cyanogen bromide cleavage of an IgG heavy chain from a homogeneous rabbit antibody.
Ehrlich PH; Matsueda GR; Margolies MN; Haber E
Immunochemistry (ENGLAND) Dec 1978, 15 (12) p937-40, ISSN 0019-2791 Journal Code: GH2
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
Subfile: INDEX MEDICUS

Tags: Animal; Support, U.S. Gov't, P.H.S.
Descriptors: IgG; * **Immunoglobulin** Fragments--isolation and **purification** --IP; *Immunoglobulins, Heavy-Chain; Antigens--immunology--IM ; **Chromatography** , Gel; Cyanogen Bromide; **Immunoglobulin** Fragments --immunology--IM; **Polysaccharides** , Bacterial--immunology--IM; Rabbits; **Streptococcus pneumoniae** --immunology--IM
CAS Registry No.: 0 (Antigens); 0 (IgG); 0 (Immunoglobulin Fragments); 0 (Immunoglobulins, Heavy-Chain); 0 (Polysaccharides, Bacterial); 506-68-3 (Cyanogen Bromide)
Record Date Created: 19790725

20/9/66 (Item 22 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

02709049 79006380 PMID: 29067
Occurrence of idiotypically identical antibodies in the sera of two outbred rabbits hyperimmunized with type II pneumococcal vaccine.
Brandt DC; Jaton JC
Journal of immunology (UNITED STATES) Sep 1978, 121 (3) p1188-93, ISSN 0022-1767 Journal Code: IFB
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
Subfile: AIM; INDEX MEDICUS
Tags: Animal
Descriptors: Bacterial Vaccines--pharmacology--PD; *Immune Sera; * **Immunoglobulin** Idiotypes; * **Streptococcus pneumoniae** --immunology--IM; Binding Sites, Antibody; Guinea Pigs; **Immunoglobulin** Idiotypes--isolation and **purification** --IP; Isoelectric Focusing; **Polysaccharides** , Bacterial --pharmacology--PD; Rabbits
CAS Registry No.: 0 (Bacterial Vaccines); 0 (Binding Sites, Antibody) ; 0 (Immune Sera); 0 (Immunoglobulin Idiotypes); 0 (Polysaccharides, Bacterial)
Record Date Created: 19781118

20/9/68 (Item 24 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

02701041 77117677 PMID: 14075
Studies of hyperimmune restricted and partially restricted anti-pneumococcal polysaccharide **antibodies from allotype-defined pedigreed rabbits--V. Variable region heavy chain sequence analysis of the cyanogen bromide C1 fragment obtained from an unusual restricted anti-SVIII antibody from a homozygous a1 partially inbred rabbit.**
James O; Freedman M
Immunochemistry (ENGLAND) Jan 1977, 14 (1) p15-24, ISSN 0019-2791 Journal Code: GH2
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
Subfile: INDEX MEDICUS
Tags: Animal; Male
Descriptors: Antibodies, Bacterial--analysis--AN; *Binding Sites, Antibody; *Complement--analysis--AN; *Complement 1--analysis--AN; * **Immunoglobulin** Allotypes; * **Immunoglobulin** Variable Region; *Immunoglobulins, Heavy-Chain--analysis--AN; * **Polysaccharides** , Bacterial; * **Streptococcus pneumoniae** --immunology--IM; Amino Acid Sequence; Antibody Specificity; Cyanogen Bromide; Homozygote; Immunization; Pedigree; Peptides --isolation and **purification** --IP; Rabbits
CAS Registry No.: 0 (Antibodies, Bacterial); 0 (Binding Sites, Antibody); 0 (Complement 1); 0 (Immunoglobulin Allotypes); 0 (Immunoglobulin Variable Region); 0 (Immunoglobulins, Heavy-Chain); 0 (Peptides); 0 (Polysaccharides, Bacterial); 506-68-3 (Cyanogen Bromide) ; 9007-36-7 (Complement)
Record Date Created: 19770428

20/9/69 (Item 25 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

02696310 76263232 PMID: 8570
Purification , **specificity, and hypervariable region sequence of anti-pneumococcal** polysaccharide **antibodies elicited in a single rabbit.**
Chen FW; Cannon LE; Margolies MN; Strosberg AD; Haber E
Journal of immunology (UNITED STATES) Sep 1976, 117 (3) p807-13, ISSN 0022-1767 Journal Code: IFB
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
Subfile: AIM; INDEX MEDICUS
Four homogeneous antibodies to type VIII pneumococcal **polysaccharide** (S8) were isolated from the serum of a single rabbit (3322) by **affinity chromatography** on an S8 immunoadsoebent by utilizing gradient elution with cellobiose and NaCl. The binding properties of these antibodies were determined by a radioimmunoassay with 125I-bovine gamma-globulin-S8. Cellobiose (a disaccharide unit of S8) was the immunodominant group of each of the four antibodies, but each antibody bound to this disaccharide with different relative affinities. The amino acid sequences (positions 0-40) of three of the four antibody light chains were each different both in framework and first hypervariable region sequences. The fourth antibody light chain has a blocked amino terminus. These findings indicate that antibodies elicited by a relatively simple antigen and examined at one time during the course of immunization in a single rabbit may exhibit common specificities for an oligosaccharide determinant, yet have different binding affinities for that determinant as well as different primary structures in the complementarity (hypervariable) regions and framework regions.
Tags: Animal; Support, U.S. Gov't, P.H.S.
Descriptors: Antibodies, Bacterial--analysis--AN; *Antibody Specificity; *Binding Sites, Antibody; * **Polysaccharides** , Bacterial--immunology--IM; Amino Acid Sequence; Antibodies, Bacterial--isolation and **purification** --IP; Antigens, Bacterial; **Chromatography , Affinity ; Immunoglobulin** Allotypes; Immunoglobulins, Light-Chain--analysis--AN; Rabbits; **Streptococcus pneumoniae** --immunology--IM; Structure-Activity Relationship
CAS Registry No.: 0 (Antibodies, Bacterial); 0 (Antigens, Bacterial); 0 (Binding Sites, Antibody); 0 (Immunoglobulin Allotypes); 0 (Immunoglobulins, Light-Chain); 0 (Polysaccharides, Bacterial)
Record Date Created: 19761101

20/9/73 (Item 29 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

01542192 75015316 PMID: 4153482
Studies of hyperimmune restricted and partially restricted anti-pneumococcal polysaccharide **antibodies from allotype-defined pedigreed rabbits. I. Preparative liquid isoelectric focusing of the antibodies and characterization of the isolated fractions by electrophoretic techniques.**
Freedman MH; Pincus JH; Yeger H; McKenney JA; Mage RG
European journal of immunology (GERMANY, WEST) Aug 1974, 4 (8) p553-60, ISSN 0014-2980 Journal Code: EN5
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
Subfile: INDEX MEDICUS
Tags: Animal
Descriptors: Antibodies, Bacterial--analysis--AN; *Antigens, Bacterial; * **Polysaccharides** , Bacterial--immunology--IM; * **Streptococcus pneumoniae** --immunology--IM; Antibodies, Bacterial--isolation and **purification** --IP; **Chromatography , Affinity ; Chromatography** , Ion Exchange; Electrophoresis, Polyacrylamide Gel; Genotype; Hydrogen-Ion Concentration;

Immunization; Immunization, Secondary; **Immunoglobulin** Fragments --isolation and **purification** --IP; Immunoglobulins--analysis--AN; Immunoglobulins--isolation and **purification** --IP; Immunoglobulins, Heavy-Chain--isolation and **purification** --IP; Isoantigens; Isoelectric Focusing; Precipitin Tests; Rabbits

CAS Registry No.: 0 (Antibodies, Bacterial); 0 (Antigens, Bacterial); 0 (Immunoglobulin Fragments); 0 (Immunoglobulins); 0 (Immunoglobulins, Heavy-Chain); 0 (Isoantigens); 0 (Polysaccharides, Bacterial)

Record Date Created: 19741219

?logoff hold

A new multiantigen immunoassay for the quantification of IgG antibodies to capsular polysaccharides **of Streptococcus pneumoniae.**

AUTHOR: Roth Felix(a); Burkart Thomas; Muhlemann Kathrin
AUTHOR ADDRESS: (a)Inst. Med. Microbiol., Univ. Berne, Friedbuhlstrasse 51, CH-3010 Berne**Switzerland

JOURNAL: Journal of Infectious Diseases 176 (2):p526-529 1997
ISSN: 0022-1899
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: A new nitrocellulose-based solid-phase multiantigen immunoassay (MAIA) for the detection of serum antibodies to Streptococcus pneumoniae capsular **polysaccharides** (PPSs) is presented. Evaluation with human sera showed that the MAIA test is reproducible, sensitive, and specific. It correlated well with a conventional ELISA method. The multiantigen **strip** system allowed quantification of antibodies against several PPS serotypes simultaneously and with a minimal amount of serum specimen. The presented solid-phase immunoassay for the quantification of anti-PPS antibodies seems to be a superior and attractive alternative to currently used ELISA tests and offers possibilities for standardization.

DESCRIPTORS:
MAJOR CONCEPTS: Immune System (Chemical Coordination and Homeostasis); Infection
BIOSYSTEMATIC NAMES: Gram-Positive Cocci--Eubacteria, Bacteria
ORGANISMS: gram-positive cocci (Gram-Positive Cocci); **Streptococcus pneumoniae (Gram-Positive Cocci)**
BIOSYSTEMATIC CLASSIFICATION (SUPER TAXA): bacteria; eubacteria; microorganisms
MISCELLANEOUS TERMS: Research Article; ANALYTICAL METHOD; CAPSULAR; IGG ANTIBODIES; IMMUNE SYSTEM; **IMMUNOGLOBULIN** G ANTIBODIES; INFECTION; METHODOLOGY; MULTIANTIGEN IMMUNOASSAY; **POLYSACCHARIDES**
CONCEPT CODES:
34502 Immunology and Immunochemistry-General; Methods
34504 Immunology and Immunochemistry-Bacterial, Viral and Fungal
36002 Medical and Clinical Microbiology-Bacteriology
10064 Biochemical Studies-Proteins, Peptides and Amino Acids
10068 Biochemical Studies-Carbohydrates
BIOSYSTEMATIC CODES:
07700 Gram-Positive Cocci (1992-)

36002 Medical and Clinical Microbiology-Bacteriology
10068 Biochemical Studies-Carbohydrates
BIOSYSTEMATIC CODES:
07700 Gram-Positive Cocci (1992-)

26/9/10 (Item 10 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

09455741 BIOSIS NO.: 199497464111
Diagnosis of Streptococcus pneumoniae pneumonia by quantitative **enzyme linked immunosorbent** assay **of C-** polysaccharide **antigen.**
AUTHOR: Gillespie S H(a); Smith M D; Dickens A; Raynes J G; McAdam K P W J
AUTHOR ADDRESS: (a)Div. Communicable Dis., Royal Free Hosp. Sch. Med., Rowland Hill St., London NW3 2QG**UK
JOURNAL: Journal of Clinical Pathology (London) 47 (8):p749-751 1994
ISSN: 0021-9746
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Aims - To evaluate the use of a quantitative enzyme linked immunosorbent assay (ELISA) detecting C-polysaccharide (PnC) antigen in sputum for the diagnosis of Streptococcus pneumoniae infection. Methods - Specimens of sputum from 60 patients with acute community and hospital acquired pneumonia and infective exacerbations of obstructive airways disease were examined by semiquantitative culture and antigen ELISA. Results - Using a cutoff value of 1 mu-g/ml PnC antigen for a positive result, the sensitivity of this assay was 90.3%, specificity 93.1%, predictive value of a positive result was 93.5%, and the predictive value of a negative result 89.6%. Conclusions - Quantitation of C-polysaccharide antigen in sputum by ELISA distinguishes between carriage of oral bacteria which express PnC-like antigen and infection with S. pneumoniae and compares favorably with other diagnostic methods.

DESCRIPTORS:
MAJOR CONCEPTS: Clinical Chemistry (Allied Medical Sciences); Enzymology (Biochemistry and Molecular Biophysics); Immune System (Chemical Coordination and Homeostasis); Infection; Methods and Techniques; Pathology; Physiology; Pulmonary Medicine (Human Medicine, Medical Sciences); Respiratory System (Respiration); Serology (Allied Medical Sciences)
BIOSYSTEMATIC NAMES: Gram-Positive Cocci--Eubacteria, Bacteria; Hominidae --Primates, Mammalia, Vertebrata, Chordata, Animalia
ORGANISMS: gram-positive cocci (Gram-Positive Cocci); human (Hominidae); **Streptococcus pneumoniae (Gram-Positive Cocci)**
BIOSYSTEMATIC CLASSIFICATION (SUPER TAXA): animals; bacteria; chordates; eubacteria; humans; mammals; microorganisms; primates; vertebrates
MISCELLANEOUS TERMS: DIAGNOSTIC METHOD; ELISA; ENZYMATIC METHOD; IMMUNOLOGICAL METHOD; OBSTRUCTIVE AIRWAY DISORDER; SPUTUM
CONCEPT CODES:
10006 Clinical Biochemistry; General Methods and Applications
10058 Biochemical Methods-Carbohydrates
10804 Enzymes-Methods
12504 Pathology, General and Miscellaneous-Diagnostic
15010 Blood, Blood-Forming Organs and Body Fluids-Other Body Fluids
16001 Respiratory System-General; Methods
16006 Respiratory System-Pathology
34502 Immunology and Immunochemistry-General; Methods
34504 Immunology and Immunochemistry-Bacterial, Viral and Fungal
36002 Medical and Clinical Microbiology-Bacteriology
36504 Medical and Clinical Microbiology-Serodiagnosis
10066 Biochemical Studies-Lipids
10068 Biochemical Studies-Carbohydrates
BIOSYSTEMATIC CODES:
07700 Gram-Positive Cocci (1992-)

86215 Hominidae

26/9/12 (Item 12 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

09337577 BIOSIS NO.: 199497345947
Evaluation **of a latex particle agglutination** assay **(LPAA) using antibody specific to pneumococcal C** polysaccharide **(PnC) for rapid** detection **and identification of Streptococcus pneumoniae (SP).**
AUTHOR: Lakshmy A; Russell H; Facklam R R
AUTHOR ADDRESS: Cent. Dis. Control and Prevention, Atlanta, GA**USA
JOURNAL: Abstracts of the General Meeting of the American Society for Microbiology 94 (0):p514 1994
CONFERENCE/MEETING: 94th General Meeting of the American Society for Microbiology Las Vegas, Nevada, USA May 23-27, 1994
ISSN: 1060-2011
RECORD TYPE: Citation
LANGUAGE: English
DESCRIPTORS:
MAJOR CONCEPTS: Immune System (Chemical Coordination and Homeostasis); Infection; Pathology; Physiology
BIOSYSTEMATIC NAMES: Gram-Positive Cocci--Eubacteria, Bacteria; Hominidae --Primates, Mammalia, Vertebrata, Chordata, Animalia
ORGANISMS: gram-positive cocci (Gram-Positive Cocci); human (Hominidae); **Streptococcus pneumoniae (Gram-Positive Cocci)**
BIOSYSTEMATIC CLASSIFICATION (SUPER TAXA): animals; bacteria; chordates; eubacteria; humans; mammals; microorganisms; primates; vertebrates
MISCELLANEOUS TERMS: DIAGNOSTIC METHOD; MEETING ABSTRACT
CONCEPT CODES:
12504 Pathology, General and Miscellaneous-Diagnostic
31000 Physiology and Biochemistry of Bacteria
34502 Immunology and Immunochemistry-General; Methods
36002 Medical and Clinical Microbiology-Bacteriology
00520 General Biology-Symposia, Transactions and Proceedings of Conferences, Congresses, Review Annuals
10064 Biochemical Studies-Proteins, Peptides and Amino Acids
10068 Biochemical Studies-Carbohydrates
36001 Medical and Clinical Microbiology-General; Methods and Techniques
BIOSYSTEMATIC CODES:
07700 Gram-Positive Cocci (1992-)
86215 Hominidae

26/9/20 (Item 1 from file: 73)
DIALOG(R)File 73:EMBASE

07356852 EMBASE No: 1998236198
Enzyme immunoassay detecting teichoic **and lipoteichoic acids versus cerebrospinal fluid culture and latex agglutination for diagnosis of Streptococcus pneumoniae meningitis**
Stuertz K.; Merx I.; Eiffert H.; Schmutzhard E.; Mader M.; Nau R.
R. Nau, Dept. of Neurology, University of Gottingen, Robert-Koch-Str. 40, D-37075 Gottingen Germany
AUTHOR EMAIL: mau@gwdg.de
Journal of Clinical Microbiology (J. CLIN. MICROBIOL.) (United States) 1998, 36/8 (2346-2348)
CODEN: JCMID ISSN: 0095-1137
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH
NUMBER OF REFERENCES: 11

A newly developed enzyme immunoassay (EIA) was used to detect the presence of pneumococcal teichoic and lipoteichoic acids in cerebrospinal fluid (CSF) from patients with Streptococcus pneumoniae meningitis who were

being treated with antibiotics. All initial CSF samples, which on culture grew S. pneumoniae, were positive in the EIA. A total of 14 subsequent culture-negative samples gave clear signals in the EIA up to day 15 after the onset of antibiotic treatment. For 11 CSF specimens, culture, microscopy, and latex agglutination were negative while the EIA detected pneumococcal antigens. The EIA did not react either with CSF of patients with meningitis caused by bacteria other than S. pneumoniae or by vital pathogens. In conclusion, this EIA can be a valuable tool for the diagnosis of S. pneumoniae meningitis from CSF samples in cases in which prior antimicrobial therapy minimizes the usefulness of culture or other antigen detection tests.

DEVICE BRAND NAME/MANUFACTURER NAME: Wellcogen/murex/Germany
DEVICE MANUFACTURER NAMES: murex/Germany
DRUG DESCRIPTORS:
*teichoic acid; *lipoteichoic acid
bacterial antigen; norfloxacin--drug therapy--dt; ciprofloxacin--drug therapy--dt; cefixime--drug therapy--dt; amoxicillin--drug therapy--dt; clavulanic acid--drug therapy--dt; amoxicillin plus clavulanic acid--drug therapy--dt; cefotaxime--drug therapy--dt; penicillin g--drug therapy--dt; ceftriaxone--drug therapy--dt
MEDICAL DESCRIPTORS:
*bacterial meningitis--diagnosis--di; *bacterial meningitis--drug therapy --dt
streptococcus pneumoniae ; enzyme immunoassay; cerebrospinal fluid culture ; latex agglutination test; antibiotic therapy; human; clinical article; oral drug administration; intravenous drug administration; article; priority journal
CAS REGISTRY NO.: 9041-38-7 (teichoic acid); 56411-57-5 (lipoteichoic acid) ; 70458-96-7 (norfloxacin); 85721-33-1 (ciprofloxacin); 79350-37-1 (cefixime); 26787-78-0, 61336-70-7 (amoxicillin); 58001-44-8 (clavulanic acid); 74469-00-4 (amoxicillin plus clavulanic acid); 63527-52-6, 64485-93-4 (cefotaxime); 1406-05-9, 61-33-6 (penicillin g); 73384-59-5, 74578-69-1 (ceftriaxone)
SECTION HEADINGS:
004 Microbiology: Bacteriology, Mycology, Parasitology and Virology
008 Neurology and Nerosurgery
037 Drug Literature Index

26/9/22 (Item 3 from file: 73)
DIALOG(R)File 73:EMBASE

07166429 EMBASE No: 1998043329
Association of intrastrain phase variation in quantity **of capsular** polysaccharide **and** teichoic **acid with the virulence of Streptococcus pneumoniae**
Kim J.O.; Weiser J.N.
Dr. J.N. Weiser, 301B Johnson Pavilion, Dept. of Microbiology, University of Pennsylvania, Philadelphia, PA 19104 United States
AUTHOR EMAIL: Weiser@mail.med.upenn.edu
Journal of Infectious Diseases (J. INFECT. DIS.) (United States) 1998 , 177/2 (368-377)
CODEN: JIDIA ISSN: 0022-1899
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH
NUMBER OF REFERENCES: 34

The pneumococcus undergoes spontaneous phase variation between an opaque and a transparent colony form. In an animal model of systemic infection following intraperitoneal inoculation of mice, the opaque phenotype was significantly more virulent than the transparent for each of 3 strains examined. The opaque phenotype was associated with 1.2- to 5.6-fold greater amounts of capsular polysaccharide compared with the transparent using a sandwich ELISA. A similar technique comparing the amount of total teichoic acid showed that the transparent phenotype had 2.1- to 3.8-fold more

immunodetectable teichoic acid. This difference was confirmed by comparing the incorporation of (sup 3H)choline into teichoic acid. Cell fractionation revealed that variation in quantity of incorporated choline was due to differences in cell wall-associated teichoic acid. Results suggest that the pneumococcus phase varies between a virulent form with more capsular polysaccharide and less teichoic acid and an avirulent form with less capsular polysaccharide and more teichoic acid.

DRUG DESCRIPTORS:
*bacterial polysaccharide--endogenous compound--ec; *teichoic acid --endogenous compound--ec
MEDICAL DESCRIPTORS:
*bacterial virulence; * **streptococcus pneumoniae**
bacterial membrane; bacterium colony; phenotype; enzyme linked immunosorbent assay; cell fractionation; nonhuman; article; priority journal
CAS REGISTRY NO.: 9041-38-7 (teichoic acid)
SECTION HEADINGS:
004 Microbiology: Bacteriology, Mycology, Parasitology and Virology

26/9/35 (Item 16 from file: 73)
DIALOG(R)File 73:EMBASE

04939154 EMBASE No: 1992079370
Pneumococcal capsular polysaccharide **antigen** detection **in urine by counterimmunelectrophoresis. Technical aspects and relationship with serotypes**
DETECCION DE ANTIGENO POLISACARIDO CAPSULAR NEUMOCOCICO EN ORINA POR CONTRAINMUNOELECTROFORESIS. ASPECTOS TECNICOS Y CORRELACION CON EL SEROTIPO
Coll P.; Moreno C.; Sanchez F.; Navarro F.; Vilamala A.; Prats G.
Servicio de Microbiologia, Hospital de la Santa Creu i Sant Pau, Avda. Sant Antoni M. Claret, 167, 08025 Barcelona Spain
Enfermedades Infecciosas y Microbiologia Clinica (ENFERM. INFECC. MICROBIOL. CLIN.) (Spain) 1991, 9/10 (599-602)
CODEN: EIMCE ISSN: 0213-005X
DOCUMENT TYPE: Journal; Article
LANGUAGE: SPANISH SUMMARY LANGUAGE: ENGLISH; SPANISH
DRUG DESCRIPTORS:
bacterial antigen; polysaccharide
MEDICAL DESCRIPTORS:
*antigen detection; *counter immunoelectrophoresis; * **streptococcus pneumoniae** ; *serotype
article; bacterium isolation; blood culture; encapsulation; human; major clinical study; methodology; serotyping; staining; urinalysis
SECTION HEADINGS:
004 Microbiology: Bacteriology, Mycology, Parasitology and Virology

26/9/36 (Item 17 from file: 73)
DIALOG(R)File 73:EMBASE

04833958 EMBASE No: 1991328694
Pneumococcal C and type polysaccharide detection **in the concentrated urine of patients with bacteremia**
Bromberg K.; Tannis G.; Rodgers A.
Department of Pediatrics, State University of New York, 451 Clarkson Avenue,Albany, NY 11203 United States
Medical Microbiology and Immunology (MED. MICROBIOL. IMMUNOL.) (Germany) 1990, 179/6 (335-338)
CODEN: MMIYA ISSN: 0300-8584
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

The C polysaccharide of Streptococcus pneumoniae was detected in the

concentrated urine of 23 of 33 patients with pneumococcal bacteremia using latex agglutination. Type-specific polysaccharides were detected in the urine of 17 of these 33 patients including 4 patients lacking C polysaccharide in their urine. These 4 with the 23 detected above gave a total sensitivity of 82% (27/33). The concentrated urine from an additional 11 patients with other bacteremias were tested by C polysaccharide and type-specific reagents and were negative. C polysaccharide detection in the concentrated urine of patients may be helpful in the diagnosis of pneumococcal infections.

DRUG DESCRIPTORS:
*polysaccharide
MEDICAL DESCRIPTORS:
*bacteremia--diagnosis--di; * **streptococcus pneumoniae** ; *urine
adolescent; adult; aged; article; child; clinical article; controlled study ; human; infant; latex agglutination test; priority journal
SECTION HEADINGS:
004 Microbiology: Bacteriology, Mycology, Parasitology and Virology

26/9/37 (Item 18 from file: 73)
DIALOG(R)File 73:EMBASE

04810114 EMBASE No: 1991304850
Location and quantitation **of the sites of O-acetylation on the capsular** polysaccharide **from Streptococcus pneumoniae type 9V by sup 1H-n.m.r. spectroscopy: Comparison with type 9A**
Rutherford T.J.; Jones C.; Davies D.B.; Elliott A.C.
Chemistry Division, National Institut for Biological Standards and Control, Blanche Lane, South Mimms EN6 3QG United Kingdom
Carbohydrate Research (CARBOHYDR. RES.) (Netherlands) 1991, 218/- (175-184)
CODEN: CRBRA ISSN: 0008-6215
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

The sup 1H-n.m.r. spectra of the Streptococcus pneumoniae type 9V (S68 in American nomenclature) capsular polysaccharide (PS) and its O-deacetylated derivative (which is structurally identical to the S. pneumoniae type 9A (S33) PS) were assigned using COSY, relayed-COSY, and 2D-NOESY experiments. The positions of the OAc groups in the alpha-GlcA, beta-ManNAc, and alpha-Glc residues of the native 9V PS were established using 2D-n.m.r. and chemical shift arguments, and the relative proportions of different O-acetylated species were estimated by integration of well-resolved sup 3H-n.m.r. signals. The locations of the OAc substituents differ from those previously reported.

DRUG DESCRIPTORS:
*polysaccharide--endogenous compound--ec
MEDICAL DESCRIPTORS:
*cell wall; * **streptococcus pneumoniae**
article; nonhuman; nuclear magnetic resonance; serotype
SECTION HEADINGS:
004 Microbiology: Bacteriology, Mycology, Parasitology and Virology

26/9/43 (Item 24 from file: 73)
DIALOG(R)File 73:EMBASE

03421464 EMBASE No: 1987174041
Pneumococcal antigens in sputa: ELISA for the detection **of pneumococcal C-** polysaccharide **in sputa from pneumonia patients**
Krook A.; Holmberg H.
Department of Infectious Diseases, Roslagstulls Hospital, Karolinska Institute, S-114 89 Stockholm Sweden

Diagnostic Microbiology and Infectious Disease (DIAGN. MICROBIOL. INFECT. DIS.) (United States) 1987, 7/1 (73-75)
CODEN: DMIDD
DOCUMENT TYPE: Journal
LANGUAGE: ENGLISH

An improved ELISA, the LKB UltroBact Pneumococcus Kit detecting pneumococcal C-polysaccharide, has been tested. Sputum samples from 72 patients with community acquired pneumonia were included in the study. The sensitivity obtained was 96.1% and the specificity 92.6%. This ELISA might offer a useful diagnostic method in major clinical microbiologic laboratories for demonstrating Streptococcus pneumonia in sputa from patients with pneumonia.

DRUG DESCRIPTORS:
*antigen; *polysaccharide
MEDICAL DESCRIPTORS:
*enzyme linked immunosorbent assay; * **streptococcus pneumoniae** ; *pneumonia ; *sputum
laboratory diagnosis; priority journal; respiratory system; diagnosis; methodology; human
MEDICAL TERMS (UNCONTROLLED): sensitivity; specificity
SECTION HEADINGS:
015 Chest Diseases, Thoracic Surgery and Tuberculosis
004 Microbiology: Bacteriology, Mycology, Parasitology and Virology

26/9/44 (Item 25 from file: 73)
DIALOG(R)File 73:EMBASE

03349550 EMBASE No: 1987102127
A new coagglutination test **for** detecting **pneumococcal C-**polysaccharide
Krook A.; Holmberg H.; Sjogren A.M.
Department of Infectious Diseases, Roslagstulls Hospital, Karolinska Institute, Box 5651, 114 89 Stockholm Sweden
European Journal of Clinical Microbiology (EUR. J. CLIN. MICROBIOL.) (Germany) 1987, 6/1 (68-69)
CODEN: EJCMD
DOCUMENT TYPE: Journal
LANGUAGE: ENGLISH

A new coagglutination test (PnC-CoA) for detecting pneumococcal C-polysaccharide (PnC) was compared with a commercial kit for detecting capsular polysaccharide using sputum samples from 105 patients with pneumonia. The sensitivity obtained with PnC-CoA was 95.8% and with the commercial kit 83.3%; the specificity was 96.5% and 91.2%, respectively. The PnC-CoA is simple to perform and it is a rapid, sensitive and specific test for detecting Streptococcus pneumoniae in sputa from adult patients with pneumonia.
DRUG DESCRIPTORS:
*polysaccharide
MEDICAL DESCRIPTORS:
* **streptococcus pneumoniae** ; *pneumonia; *sputum
blood clotting; respiratory system; methodology; human; etiology; diagnosis
SECTION HEADINGS:
004 Microbiology: Bacteriology, Mycology, Parasitology and Virology

26/9/47 (Item 28 from file: 73)
DIALOG(R)File 73:EMBASE

02974693 EMBASE No: 1985068653
Modification of a direct enzyme-linked immunosorbent assay **for the** detection **of immunoglobulin G and M antibodies to pneumococcal capsular**

polysaccharide
Messina J.P.; Hickox P.G.; Lepow M.L.; et al.
Department of Pediatrics, Albany Medical College of Union University, Albany, NY 12208 United States
Journal of Clinical Microbiology (J. CLIN. MICROBIOL.) (United States) 1985, 21/3 (390-394)
CODEN: JCMID
DOCUMENT TYPE: Journal
LANGUAGE: ENGLISH

In contrast to the usual indirect enzyme-linked immunosorbent assay (ELISA) method for detection of antibody responses, a modified direct ELISA technique was used to measure immunoglobulin G (IgG) and IgM responses to pneumococcal capsular types 1, 3, 9N, and 23F in humans. Individual capsular polysaccharides were covalently bound to poly-L-lysine before adsorption to the solid phase. The coupling reaction was enhanced by maintenance of a constant pH of 8.2 after the addition of all reactants. The evaluation of four diluents (phosphate-buffered saline (PBS)-Tween; PBS-Tween plus 10% fetal calf serum; PBS-Tween plus 10% bovine serum albumin; and PBS-Tween plus 20% normal goat serum) showed that the sensitivity and specificity of the assay was increased with normal goat serum (10-fold). Serum samples from 10 subjects immunized with polyvalent pneumococcal vaccine were tested by direct ELISA and by radioimmunoassay. At 4 weeks postimmunization, the ELISA method showed that IgG was the predominant antibody and that IgM responses were lower or had diminished. Isotype shifts during this period would have been undetected by the radioimmunoassay method. The changes in antibody response measured by ELISA were comparable to the radioimmunoassay results. The direct ELISA method for the detection of antipneumococcal capsular antibody has been found to be a sensitive and reproducible assay for the detection of IgG and IgM antibodies.

DRUG DESCRIPTORS:
*immunoglobulin g; *immunoglobulin m
MEDICAL DESCRIPTORS:
*antibody detection; *antibody response; *enzyme linked immunosorbent assay ; * **streptococcus pneumoniae**
priority journal; diagnosis; human
MEDICAL TERMS (UNCONTROLLED): capsule
CAS REGISTRY NO.: 97794-27-9 (immunoglobulin g); 9007-85-6 (immunoglobulin m)
SECTION HEADINGS:
004 Microbiology: Bacteriology, Mycology, Parasitology and Virology
026 Immunology, Serology and Transplantation

26/9/49 (Item 30 from file: 73)
DIALOG(R)File 73:EMBASE

02838723 EMBASE No: 1985182682
Detection **of C** polysaccharide **in Streptococcus pneumoniae in the sputa of pneumonia patients by an enzyme-linked immunosorbent** assay
Holmberg H.; Holme T.; Krook A.; et al.
Department of Clinical Microbiology and Immunology, Orebro Medical Center Hospital, S-701 85 Orebro Sweden
Journal of Clinical Microbiology (J. CLIN. MICROBIOL.) (United States) 1985, 22/1 (111-115)
CODEN: JCMID
DOCUMENT TYPE: Journal
LANGUAGE: ENGLISH

The pneumococcal C polysaccharide (PnC) is species specific and believed to be a cell wall component of all pneumococcal types. A sandwich enzyme-linked immunosorbent assay (ELISA) for detection of PnC in sputa has been developed by using a monoclonal antiphosphorylcholine antibody and a polyclonal rabbit anti-PnC antiserum in the test system. A 1-year study of

adult hospitalized patients with community-acquired pneumonia was performed. A total of 147 patients with clinical and radiological evidence for pneumonia were accepted for the study. Of these, 105 patients provided a sputum sample upon admission to the ward. The sputa were cultured semiquantitatively as well as tested for the presence of antigen. Of the sputum samples from patients with Streptococcus pneumoniae, 27 of 33 (accounting for a sensitivity of 82%) were positive in the ELISA test. Of the sputum samples from patients wtih pneumonia of some other known or suspected etiology, 32 of 34 (accounting for a specificity of 94%) were negative. In addition, 7 sputum samples from 31 patients with pneumonia of unknown etiology were positive. The ELISA test described here is in our opinion a sensitive and specific test for detecting PnC from S. pneumoniae in sputa from patients with untreated pneumonia.

MEDICAL DESCRIPTORS:
*enzyme linked immunosorbent assay; * **streptococcus pneumoniae** ; *pneumonia ; *sputum
diagnosis; respiratory system; priority journal; methodology; etiology; clinical article; human
SECTION HEADINGS:
  004 Microbiology: Bacteriology, Mycology, Parasitology and Virology
  015 Chest Diseases, Thoracic Surgery and Tuberculosis
  026 Immunology, Serology and Transplantation

26/9/50 (Item 31 from file: 73)
DIALOG(R)File 73:EMBASE

02748830 EMBASE No: 1984067789
Phosphorylcholine determinants **in six pneumococcal capsular** polysaccharides detected **by monoclonal antibody**
Sorensen U.B.S.; Agger R.; Bennedsen J.; Henrichsen J.
World Health Organization Collaborating Center for Reference and Research on Pneumococci, Statens Seruminstitut, DK-2300 Copenhagen S Denmark
Infection and Immunity (INFECT. IMMUN.) (United States) 1984, 43/3 (876-878)
CODEN: INFIB
DOCUMENT TYPE: Journal
LANGUAGE: ENGLISH

The presence of phosphorylcholine in pneumococcal capsular polysaccharides was examined by using monoclonal antiphosphorylcholine antibody. Of the 83 known capsular types of Streptococcus pneumoniae, 6 types, viz., 24A, 27, 28F, 28A, 32F, and 32A, gave a positive capsular reaction (quellung) which could be inhibited by phosphorylcholine. The capsular polysaccharides of these six types, therefore, contain phosphorylcholine.

DRUG DESCRIPTORS:
*monoclonal antibody; *phosphorylcholine
epitope; polysaccharide
MEDICAL DESCRIPTORS:
* **streptococcus pneumoniae**
bacterial membrane; nonhuman; mouse; spleen; animal experiment
CAS REGISTRY NO.: 107-73-3 (phosphorylcholine)
SECTION HEADINGS:
  026 Immunology, Serology and Transplantation
  004 Microbiology: Bacteriology, Mycology, Parasitology and Virology
  015 Chest Diseases, Thoracic Surgery and Tuberculosis
  005 General Pathology and Pathological Anatomy

26/9/52 (Item 33 from file: 73)
DIALOG(R)File 73:EMBASE

02463357 EMBASE No: 1983116368
The quantitative **immunochemical** determination **of pneumococcal and meningococcal capsular** polysaccharides **by light scattering rate nephelometry**
Lee C.J.
Bur. Biol., Food Drug Adm., Bethesda, MD 20205 United States
Journal of Biological Standardization (J. BIOL. STAND.) (United Kingdom) 1983, 11/1 (55-64)
CODEN: JBSTB
DOCUMENT TYPE: Journal
LANGUAGE: ENGLISH

A quantitative nephelometric method was used for the measurement of the individual pneumococcal, as well as meningococcal, polysaccharides in the polyvalent vaccine final containers. This method is simple, rapid, inexpensive, and provides both qualitative and quantitative analyses of the polyvalent polysaccharide vaccines. By this method the individual pneumococcal types 1, 2, 3, 4, 6A, 7F, 8, 9N, 12F, 14, 18C, 19F, 23F and 25 polysaccharides, were found to be present at 90-114% of the manufacturer's indicated concentrations; meningococcal group A, C, Y and W135 polysaccharides were at 90-108% of the manufacturer's listed concentrations. This nephelometric method coupled with gel filtration can also be used for measurement of the molecular sizes of stability of individual polysaccharides in the final container. Pneumococcal polysaccharide types 3, 6A, 9N and 19F, used as representative types, were treated with 0.5 N hydrochloric acid. The molecular sizes for types 3 and 9 N polysaccharides were stable to acid treatment. In contrast, types 6A and 19F polysaccharides were degraded. Heating meningococcal groups A, C, Y and W135 polysaccharides at 37degreeC for 48 h did not affect their molecular size in the polyvalent vaccine.

DRUG DESCRIPTORS:
*bacterial antigen; *polysaccharide; *vaccine
MEDICAL DESCRIPTORS:
*bacterial membrane; *neisseria meningitidis; * **streptococcus pneumoniae** immunochemistry; nonhuman
SECTION HEADINGS:
004 Microbiology: Bacteriology, Mycology, Parasitology and Virology
026 Immunology, Serology and Transplantation

26/9/56 (Item 37 from file: 73)
DIALOG(R)File 73:EMBASE

02036620 EMBASE No: 1981023798
Enzyme immunoassay **of the capsular** polysaccharide **of Streptococcus pneumoniae type III in cerebrospinal fluid in experimental meningitis**
Nolan C.M.; Ulmer Jr. W.C.
Infect. Dis. Div., Dept. Med., Univ. Arkansas Coll. Med., Little Rock, Ark. 72205 United States
Journal of Medical Microbiology (J. MED. MICROBIOL.) (United Kingdom) 1980, 13/4 (551-560)
CODEN: JMMIA
DOCUMENT TYPE: Journal
LANGUAGE: ENGLISH

An enzyme immunoassay (EIA) for the capsular polysaccharide of Streptococcus pneumoniae type III was developed and applied to the measurement of this antigen in cerebrospinal fluid (CSF) in an experimental model of pneumococcal meningitis. EIA was performed by a single-antibody sandwich technique in which the globulin fraction of pneumococcal type-specific antiserum (antiserum-globulin) was used to coat the solid phase before antigen attachment and to conjugate with the labelling enzyme, horseradish peroxidase. Under optimum assay conditions EIA detected purified pneumococcal type III capsular polysaccharide in concentrations as low as 0.15 ng/ml in aqueous buffer. Assayed by EIA, the mean concentration

of type-III capsular polysaccharide in CSF of rabbits with pneumococcal meningitis increased exponentially from 24 h to 96 h of infection (range 13.9 ng/ml-62 500 ng/ml). Effective antimicrobial therapy of rabbits with meningitis was associated with a rapid decrease in the CSF concentration of the capsular antigen, although it was still detected in concentration in the range 1-10 ng/ml in 100% of animals treated for 4 days. Thus EIA provides a quantitative and extremely sensitive method of measuring type-III pneumococcal capsular polysaccharide in CSF.

DRUG DESCRIPTORS:
bacterial antigen; polysaccharide
MEDICAL DESCRIPTORS:
*meningitis; *serodiagnosis; * **streptococcus pneumoniae**
cerebrospinal fluid; enzyme immunoassay; animal experiment; diagnosis
SECTION HEADINGS:
  004 Microbiology: Bacteriology, Mycology, Parasitology and Virology
  026 Immunology, Serology and Transplantation
  008 Neurology and Nerosurgery

26/9/55 (Item 36 from file: 73)
DIALOG(R)File 73:EMBASE

02115667 EMBASE No: 1982156763
Detection **of 'neutral' type 7F and type 14 pneumococcal capsular** polysaccharides **by immunoelectrophoresis**
Szu S.C.; Oravec L.S.
Bur. Biol., Food Drug Adm., Bethesda, MD 20205 United States
Journal of Clinical Microbiology (J. CLIN. MICROBIOL.) (United States)
1982, 15/6 (1172-1175)
CODEN: JCMID
DOCUMENT TYPE: Journal
LANGUAGE: ENGLISH

Type 7F and type 14 pneumococcal capsular polysaccharides, neutral at pH 8.6, were studied by immunoelectrophoresis at pH 5. Three techniques were used: rocket, countercurrent, and reversed immunoelectrophoresis. Our results show that these capsular polysaccharides types can be detected at pH 5 with high sensitivity.

DRUG DESCRIPTORS:
*bacterial antigen; *polysaccharide
MEDICAL DESCRIPTORS:
* **streptococcus pneumoniae**
in vitro study; diagnosis
MEDICAL TERMS (UNCONTROLLED): capsule
SECTION HEADINGS:
  004 Microbiology: Bacteriology, Mycology, Parasitology and Virology
  026 Immunology, Serology and Transplantation

26/9/60 (Item 41 from file: 73)
DIALOG(R)File 73:EMBASE

01707054 EMBASE No: 1980075328
Detection **of pneumococcal capsular** polysaccharide **antigens by latex agglutination, counterimmunoelectrophoresis, and radioimmunoassay in middle ear exudates in acute otitis media**
Leinonen M.K.
Dept. Med. Microbiol., Univ. Oulu Finland
Journal of Clinical Microbiology (J. CLIN. MICROBIOL.) (United States)
1980, 11/2 (135-140)
CODEN: JCMID
DOCUMENT TYPE: Journal
LANGUAGE: ENGLISH

The presence of pneumococcal antigen in middle ear exudates during acute otitis media was studied by latex agglutination and counterimmunoelectrophoresis. The positive antigen findings were confirmed by radioimmunoassay. Latex agglutination gave a positive result in 63% and counterimmunoelectrophoresis in 76% of samples that grew Streptococcus pneumoniae. The methods were complementary; the antigen was detected by one or both of the methods in 88% of these samples. Pneumococcal antigen was further detected in 15% of samples that grew other otitis pathogens and in 33% of samples in which no pathogenic bacteria were recovered by culture. The distribution of pneumococcal serotypes found by immunochemical methods only corresponded to that found by culture.

DRUG DESCRIPTORS:
*bacterial antigen
MEDICAL DESCRIPTORS:
* **streptococcus pneumoniae** ; *otitis media; *serodiagnosis
counter immunoelectrophoresis; radioimmunoassay; auditory system; diagnosis ; methodology
MEDICAL TERMS (UNCONTROLLED): latex fixation test
SECTION HEADINGS:
004 Microbiology: Bacteriology, Mycology, Parasitology and Virology
026 Immunology, Serology and Transplantation

26/9/64 (Item 45 from file: 73)
DIALOG(R)File 73:EMBASE

01280894 EMBASE No: 1979001378
Immunoelectrophoresis for detection **of** polysaccharides **in immune complexes**
Coonrod J.D.; Leach R.P.
Div. Infect., Dept. Med., VA Hosp., Lexington, Ky. 40506 United States
Journal of Clinical Microbiology (J. CLIN. MICROBIOL.) (United States)
1978, 8/2 (257-259)
CODEN: JCMID
DOCUMENT TYPE: Journal
LANGUAGE: ENGLISH

A procedure for detecting pneumococcal capsular polysaccharides in immune complexes is described. Separation of antigen from immune complexes is achieved by electrophoresis at 56degreeC.

DRUG DESCRIPTORS:
*polysaccharide
antibody; antigen
MEDICAL DESCRIPTORS:
* **streptococcus pneumoniae** ; *antigen antibody complex; * immunoelectrophoresis
in vitro study; theoretical study
SECTION HEADINGS:
004 Microbiology: Bacteriology, Mycology, Parasitology and Virology
026 Immunology, Serology and Transplantation

26/9/65 (Item 46 from file: 73)
DIALOG(R)File 73:EMBASE

01196330 EMBASE No: 1978327744
Enzymatic measurement **of glucose and galactose content of pneumococcal capsular** polysaccharides
Lee C.J.; Robbins J.B.
Div. Bacter. Prod., Bur. Biol., Food and Drug Adm., Bethesda, Md. 20014 United States
Journal of Biological Standardization (J. BIOL. STAND.) (United Kingdom

) 1978, 6/2 (87-95)
CODEN: JBSTB
DOCUMENT TYPE: Journal
LANGUAGE: ENGLISH

Glucose and galactose contents of pneumococcal capsular polysaccharides were measured by enzymatic oxidation following acid hydrolysis. The variables of acid hydrolysis and enzyme activities under various conditions were studied in detail for pneumococcal polysaccharide type 8 because its structure is comparatively simple and well characterized. The maximum glucose release from type 8 occurred with 4-6 N-HCl for 1 h at 100degreeC (93.1% of theoretic value). Maximum galactose release occurred following hydrolysis in 1-4 N-HCl, 100degreeC for 1 h (92.3-94.3% of theoretic value). The maximum glucose and galactose oxidase activities were observed at pH 7.5 and 37degreeC. Glucose oxidase acitivity increased rapidly and proportionally up to 30 min reaction time: in contrast, galactose oxidase activity increased gradually up to 60 min. Under present experimental conditions, measured and theoretic glucose values were in close agreement for pneumococcal polysaccharide types 2, 6, 8, 9 and 19. For galactose, measured and theoretic values were in close agreement for types 6, 8, 14, 23, and 51.

DRUG DESCRIPTORS:
*galactose; *glucose; *polysaccharide
MEDICAL DESCRIPTORS:
*bacterium; * **streptococcus pneumoniae**
in vitro study; animal experiment
CAS REGISTRY NO.: 26566-61-0, 50855-33-9, 59-23-4 (galactose); 50-99-7, 84778-64-3 (glucose)
SECTION HEADINGS:
004 Microbiology: Bacteriology, Mycology, Parasitology and Virology
029 Clinical and Experimental Biochemistry

26/9/66 (Item 47 from file: 73)
DIALOG(R)File 73:EMBASE

00696028 EMBASE No: 1977041375
Detection **of pneumococcal** polysaccharide **in the sputum of patients with pneumococcal pneumonia by counterimmunoelectrophoresis**
Perlino C.A.; Shulman J.A.
Dept. Med., Emory Univ. Sch. Med., Atlanta, Ga. 30303 United States
Journal of Laboratory and Clinical Medicine (J. LAB. CLIN. MED.) 1976, 87/3 (496-502)
CODEN: JLCMA
DOCUMENT TYPE: Journal
LANGUAGE: ENGLISH

Each of 41 patients with bacterial pneumonia was placed into 1 of 4 categories based on the relative clinical certainty of the diagnosis of pneumococcal pneumonia. The frequency of pneumococcal polysaccharide in the sputum by counterimmunoelectrophoresis (CIE) was then noted for each diagnostic category of patients. Detection of pneumococcal polysaccharide in sputum correlated with the diagnostic certainty of pneumococcal pneumonia, while results of culture of sputum were less indicative of pneumococcal infection. Saliva of 83 normal individuals failed to give positive tests for pneumococcal polysaccharide despite the presence of alpha hemolytic streptococci on culture. Furthermore, the mere presence of pneumococci in cultures did not predict a positive test for polysaccharide by CIE nor did the absence of pneumococci mean that polysaccharide would not be detected. This study suggests that detection of pneumococcal polysaccharide appears more rapid, more sensitive, and more specific than sputum cultures in diagnosing pneumococcal infection of the lung.

DRUG DESCRIPTORS:
*polysaccharide

MEDICAL DESCRIPTORS:
*counter immunoelectrophoresis; * **streptococcus pneumoniae** ; *pneumonia; * sputum
methodology; major clinical study; microorganism; in vitro study
SECTION HEADINGS:
015 Chest Diseases, Thoracic Surgery and Tuberculosis
004 Microbiology: Bacteriology, Mycology, Parasitology and Virology
011 Otorhinolaryngology
029 Clinical and Experimental Biochemistry
006 Internal Medicine

26/9/67 (Item 48 from file: 73)
DIALOG(R)File 73:EMBASE

00673408 EMBASE No: 1977018741
Detection **and** quantitation **of circulating** polysaccharide **in pneumococcal pneumonia by immunoelectroosmophoresis (counterelectrophoresis) and rocket electrophoresis**
MICROBIOLOGY 1975
Kenny G.E.; Foy H.M.
Dept. Pathobiol., Univ. Washington, Seattle, Wash. 98195 United States
1975, (97-102)
CODEN: BOOKA
DOCUMENT TYPE: Book
LANGUAGE: ENGLISH
DRUG DESCRIPTORS:
*antigen; *polysaccharide
MEDICAL DESCRIPTORS:
*bacteremia; * **streptococcus pneumoniae** ; *pneumonia
theoretical study; microorganism
MEDICAL TERMS (UNCONTROLLED): precipitation test
SECTION HEADINGS:
004 Microbiology: Bacteriology, Mycology, Parasitology and Virology
015 Chest Diseases, Thoracic Surgery and Tuberculosis
026 Immunology, Serology and Transplantation

26/9/68 (Item 49 from file: 73)
DIALOG(R)File 73:EMBASE

00201599 EMBASE No: 1974191742
The assay **of pneumococcal capsular** polysaccharide **by immunodiffusion**
Porschen R.K.; Kennedy E.R.
Dept. Biol., Cathol. Univ. America, Washington, D.C. 20017 United States
Journal of Immunological Methods (J. IMMUNOL. METHODS) 1974, 4/1 (107-108)
CODEN: JIMMB
DOCUMENT TYPE: Journal
LANGUAGE: ENGLISH

A simple gel diffusion technique was compared with the quantitative precipitin test for evaluating concentrations of pneumococcal polysaccharide. The analysis showed that results with unknown samples compared closely by the two methods.

MEDICAL DESCRIPTORS:
* **streptococcus pneumoniae** ; *immunodiffusion
theoretical study; microorganism
SECTION HEADINGS:
026 Immunology, Serology and Transplantation
029 Clinical and Experimental Biochemistry

26/9/73 (Item 1 from file: 144)

DIALOG(R)File 144:Pascal

10155213 PASCAL No.: 92-0360967

Enzyme immunoassay **for the** detection **of pneumococcal C** polysaccharide **in sputum of patients with presumptive pneumococcal pneumonia**

PARKINSON A J; DAVIDSON M; CAMPBELL J; RABIEGO M E; JOHNSON C
Cent. infectious diseases, arctic investigations program, Anchorage AL 99501, USA

Journal: Serodiagnosis and immunotherapy in infectious disease, 1990, 4 (6) 495-503
ISSN: 0888-0786 Availability: INIST-21409; 354000010266170130
No. of Refs.: 17 ref.
Document Type: P (Serial) ; A (Analytic)
Country of Publication: United Kingdom
Language: English

English Descriptors: Microorganism capsule; Human; Polysaccharide; Antigen; Bacteriosis; Respiratory disease; Detection; **Streptococcus pneumoniae** ; Sputum
Broad Descriptors: Infection; Streptococcaceae; Micrococcales; Bacteria; Infection; Streptococcaceae; Micrococcales; Bacterie; Infeccion; Streptococcaceae; Micrococcales; Bacteria
French Descriptors: Capsule microorganisme; Homme; Polyoside; Antigene; Bacteriose; Appareil respiratoire pathologie; Detection; **Streptococcus pneumoniae** ; Expectoration

Classification Codes: 002A05B14
?l

DIALOG(R)File 155:MEDLINE(R)

09885065 98340332 PMID: 9666020

Enzyme immunoassay detecting teichoic **and lipoteichoic acids versus cerebrospinal fluid culture and latex agglutination for diagnosis of Streptococcus pneumoniae meningitis.**

Stuertz K; Merx I; Eiffert H; Schmutzhard E; Mader M; Nau R
Department of Neurology, University of Gottingen, Germany.

Journal of clinical microbiology (UNITED STATES) Aug 1998, 36 (8) p2346-8, ISSN 0095-1137 Journal Code: HSH
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
Subfile: INDEX MEDICUS

A newly developed enzyme immunoassay (EIA) was used to detect the presence of pneumococcal teichoic and lipoteichoic acids in cerebrospinal fluid (CSF) from patients with Streptococcus pneumoniae meningitis who were being treated with antibiotics. All initial CSF samples, which on culture grew S. pneumoniae, were positive in the EIA. A total of 14 subsequent culture-negative samples gave clear signals in the EIA up to day 15 after the onset of antibiotic treatment. For 11 CSF specimens, culture, microscopy, and latex agglutination were negative while the EIA detected pneumococcal antigens. The EIA did not react either with CSF of patients with meningitis caused by bacteria other than S. pneumoniae or by viral pathogens. In conclusion, this EIA can be a valuable tool for the diagnosis of S. pneumoniae meningitis from CSF samples in cases in which prior antimicrobial therapy minimizes the usefulness of culture or other antigen detection tests.

Tags: Animal; Comparative Study; Female; Human; Male; Support, Non-U.S. Gov't
Descriptors: Immunoenzyme Techniques; *Lipopolysaccharides--cerebrospinal fluid--CF; *Meningitis, Pneumococcal--diagnosis--DI; * **Streptococcus pneumoniae** --isolation and purification--IP; *Teichoic Acids--cerebrospinal fluid--CF; Antibiotics--therapeutic use--TU; Cerebrospinal Fluid --microbiology--MI; Latex Fixation Tests; Meningitis, Pneumococcal--drug therapy--DT; Rabbits; Sensitivity and Specificity; **Streptococcus pneumoniae** --growth and development--GD
CAS Registry No.: 0 (Antibiotics); 0 (Lipopolysaccharides); 0 (Teichoic Acids); 56411-57-5 (lipoteichoic acid)
Record Date Created: 19981013

26/9/135 (Item 6 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

09392094 97379402 PMID: 9237724

A new multiantigen immunoassay **for the quantification of IgG antibodies to capsular** polysaccharides **of Streptococcus pneumoniae.**

Roth F; Burkart T; Muhlemann K
Institute of Medical Microbiology, University of Berne, Switzerland.

Journal of infectious diseases (UNITED STATES) Aug 1997, 176 (2) p526-9, ISSN 0022-1899 Journal Code: IH3
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
Subfile: AIM; INDEX MEDICUS

A new nitrocellulose-based solid-phase multiantigen immunoassay (MAIA) for the detection of serum antibodies to Streptococcus pneumoniae capsular polysaccharides (PPSs) is presented. Evaluation with human sera showed that the MAIA test is reproducible, sensitive, and specific. It correlated well with a conventional ELISA method. The multiantigen strip system allowed quantification of antibodies against several PPS serotypes simultaneously and with a minimal amount of serum specimen. The presented solid-phase immunoassay for the quantification of anti-PPS antibodies seems to be a superior and attractive alternative to currently used ELISA tests and offers possibilities for standardization.

Tags: Comparative Study; Human

Descriptors: Antibodies, Bacterial--blood--BL; *Bacterial Capsules --immunology--IM; *Immunoenzyme Techniques; * **Streptococcus pneumoniae** --immunology--IM; Adult; Antigens, Bacterial; Bacterial Vaccines; Cell Wall ; Enzyme-Linked Immunosorbent Assay; Fetal Blood; Immune Sera; Sensitivity and Specificity

CAS Registry No.: 0 (Antibodies, Bacterial); 0 (Antigens, Bacterial); 0 (Bacterial Capsules); 0 (Bacterial Vaccines); 0 (Immune Sera)

Record Date Created: 19970825

26/9/137 (Item 8 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

08663631 96096265 PMID: 7490310

Detection **of C-** polysaccharide **in serum of patients with Streptococcus pneumoniae bacteraemia.**

Gillespie SH; Smith MD; Dickens A; Raynes JG; McAdam KP

Department of Medical Microbiology, Royal Free Hospital, School of Medicine, London.

Journal of clinical pathology (ENGLAND) Sep 1995, 48 (9) p803-6, ISSN 0021-9746 Journal Code: HT3

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: AIM; INDEX MEDICUS

AIM--To investigate the fate of Streptococcus pneumoniae C-polysaccharide antigen in serum in patients with S pneumoniae bacteraemia. METHOD--In vitro dissociation experiments were performed to demonstrate that C-polysaccharide was masked by ligands in normal and acute phase serum. Serum samples from 22 patients with S pneumoniae bacteraemia were treated to dissociate immune complexes and then tested for C-polysaccharide by enzyme linked immunosorbent assay (ELISA). RESULTS--C-polysaccharide antigen was masked in normal and acute phase serum but could be released by EDTA treatment and detected by ELISA. Antigen was found in six patients ranging in concentration from 2.5 to 200 ng/ml. Patients with detectable antigen were more likely to die than those in whom antigen was not detected. CONCLUSION--This study demonstrates that C-polysaccharide antigen commonly circulates in patients with S pneumoniae bacteraemia but its presence is masked by ligands present in serum.

Tags: Female; Human; Male

Descriptors: Antigens, Bacterial--blood--BL; *Bacteremia--immunology--IM; *Pneumococcal Infections--immunology--IM; *Polysaccharides, Bacterial --blood--BL; * **Streptococcus pneumoniae** --immunology--IM; Acute Disease; Adolescence; Adult; Aged; Aged, 80 and over; Antigen-Antibody Complex--drug effects--DE; Biological Markers--blood--BL; Child; Child, Preschool; Edetic Acid--pharmacology--PD; Enzyme-Linked Immunosorbent Assay; Infant; Ligands; Middle Age; Survival Rate

CAS Registry No.: 0 (Antigen-Antibody Complex); 0 (Antigens, Bacterial); 0 (Biological Markers); 0 (Ligands); 0 (Polysaccharides, Bacterial); 0 (polysaccharide C-substance (Streptococcus)); 60-00-4 (Edetic Acid)

Record Date Created: 19960104

26/9/138 (Item 9 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

08454344 96015891 PMID: 7569628

Dot-enzyme-linked immunosorbent assay **(Dot-ELISA) for** detection **of pneumococcal** polysaccharide **antigens in pleural fluid effusion samples. Comparison with bacterial culture, counterimmunoelectrophoresis and latex agglutination.**

Requejo HI; Alkmin M das G; Almeida RG; Casagrande ST; Cocozza AM; Lotufo JP; Waetge AR; Rodrigues JC

Secao de Imunologia, Instituto Adolfo Lutz, Sao Paulo, Brasil.

Revista do Instituto de Medicina Tropical de Sao Paulo (BRAZIL) Nov-Dec 1994, 36 (6) p531-7, ISSN 0036-4665 Journal Code: S9D

Languages: ENGLISH
Document type: Clinical Trial; Journal Article
Record type: Completed
Subfile: INDEX MEDICUS

A dot-enzyme-linked immunosorbent assay (Dot-ELISA) for pneumococcal antigen detection was standardized in view of the need for a rapid and accurate immunodiagnosis of acute pneumococcal pneumonia. A total of 442 pleural fluid effusion samples (PFES) from children with clinical and laboratory diagnoses of acute bacterial pneumonia, plus 38 control PFES from tuberculosis patients and 20 negative control serum samples from healthy children were evaluated by Dot-ELISA. The samples were previously treated with 0.1M EDTA pH 7.5 at 90 degrees C for 10 min and dotted on nitrocellulose membrane. Pneumococcal omniserum diluted at 1:200 was employed in this assay for antigen detection. When compared with standard bacterial culture, counterimmunoelectrophoresis and latex agglutination techniques, the Dot-ELISA results showed relative indices of 0.940 to sensitivity, 0.830 to specificity and 0.760 to agreement. Pneumococcal omniserum proved to be an optimal polyvalent antiserum for the detection of pneumococcal antigen by Dot-ELISA. Dot-ELISA proved to be a practical alternative technique for the diagnosis of pneumococcal pneumonia.

Tags: Comparative Study; Human

Descriptors: Antigens, Bacterial--analysis--AN; *Immunoblotting; *Pleural Effusion--chemistry--CH; *Pneumonia, Pneumococcal--diagnosis--DI; *Polysaccharides, Bacterial--analysis--AN; * **Streptococcus pneumoniae** --immunology --IM; Acute Disease; Child; Child, Preschool; Counterimmunoelectrophoresis; Infant; Infant, Newborn; Latex Fixation Tests; Pneumonia, Bacterial --diagnosis--DI; Predictive Value of Tests; Sensitivity and Specificity

CAS Registry No.: 0 (Antigens, Bacterial); 0 (Polysaccharides, Bacterial)

Record Date Created: 19951027

26/9/139 (Item 10 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

08402830 96050866 PMID: 8556496

Measurement **of pneumococcal capsular** polysaccharide **serotype-specific immunoglobulin G in human serum, a method for assigning weight-based units to proposed reference sera.**

Rudolph KM; Parkinson AJ

Arctic Investigation Program, National Center for Infectious Diseases, Centers for Disease Control and Prevention, Anchorage, Alaska 99501, USA.

Clinical and diagnostic laboratory immunology (UNITED STATES) Sep 1994, 1 (5) p526-30, ISSN 1071-412X Journal Code: CB7

Languages: ENGLISH
Document type: Journal Article
Record type: Completed
Subfile: INDEX MEDICUS

A direct method for measuring serotype-specific, class-specific antibody in proposed human reference sera is described. The assay uses a 125I-labeled, isotopically pure immunoglobulin G (IgG) as a primary standard in an antigen-antibody solid-phase enzyme immunoassay. From the measurement of specific radioactivity bound to the absorbed antigen, serotype-specific IgG concentrations and optical density values can be directly related to optical density and serotype-specific IgG values for the reference serum. We used this method to provisionally assign IgG concentrations in a pneumococcal reference serum to serotypes 1, 3, 6A, 12F, 14 and 23F. This assay was found to be reproducible; the coefficient of variation for duplicates was within 5%, and the day-to-day coefficient of variation was from 3 to 18% for all six serotypes. The assay provides a general method for standardizing human reference serum tools with respect to concentration of antigen-specific IgM-, IgA-, and IgG-subclass antibodies.

Tags: Comparative Study; Human

Descriptors: Bacterial Capsules--immunology--IM; *IgG--blood--BL; *Polysaccharides, Bacterial--immunology--IM; * **Streptococcus pneumoniae** --immunology--IM; Antibody Specificity--immunology--IM; Immunoenzyme

Techniques--standards--ST; Iodine Radioisotopes; Reference Values; Reproducibility of Results; Sensitivity and Specificity; Weights and Measures
CAS Registry No.: 0 (Bacterial Capsules); 0 (IgG); 0 (Iodine Radioisotopes); 0 (Polysaccharides, Bacterial)
Record Date Created: 19960223

26/9/140 (Item 11 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

08279873 95051644 PMID: 7962631
Diagnosis of Streptococcus pneumoniae pneumonia by quantitative **enzyme linked immunosorbent** assay **of C-** polysaccharide **antigen.**
Gillespie SH; Smith MD; Dickens A; Raynes JG; McAdam KP
Division of Communicable Diseases, Royal Free Hospital School of Medicine, London.
Journal of clinical pathology (ENGLAND) Aug 1994, 47 (8) p749-51, ISSN 0021-9746 Journal Code: HT3
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
Subfile: AIM; INDEX MEDICUS
AIMS--To evaluate the use of a quantitative enzyme linked immunosorbent assay (ELISA) detecting C-polysaccharide (PnC) antigen in sputum for the diagnosis of Streptococcus pneumoniae infection. METHODS--Specimens of sputum from 60 patients with acute community and hospital acquired pneumonia and infective exacerbations of obstructive airways disease were examined by semiquantitative culture and antigen ELISA. RESULTS--Using a cutoff value of 1 microgram/ml PnC antigen for a positive result, the sensitivity of this assay was 90.3%, specificity 93.1%, predictive value of a positive result was 93.5%, and the predictive value of a negative result 89.6%. CONCLUSIONS--Quantitation of C-polysaccharide antigen in sputum by ELISA distinguishes between carriage of oral bacteria which express PnC-like antigen and infection with S pneumoniae and compares favourably with other diagnostic methods.
Tags: Female; Human; Male
Descriptors: Antigens, Bacterial--analysis--AN; *Pneumococcal Infections --diagnosis--DI; *Polysaccharides, Bacterial--analysis--AN; *Sputum --immunology--IM; * **Streptococcus pneumoniae** --immunology--IM; Acute Disease; Adult; Aged; Aged, 80 and over; Enzyme-Linked Immunosorbent Assay --methods--MT; Lung Diseases, Obstructive--microbiology--MI; Middle Age; Predictive Value of Tests; Sensitivity and Specificity
CAS Registry No.: 0 (Antigens, Bacterial); 0 (Polysaccharides, Bacterial); 0 (polysaccharide C-substance (Streptococcus))
Record Date Created: 19941208

26/9/141 (Item 12 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

08271860 95039702 PMID: 7952001
Application of capillary ion electrophoresis and ion chromatography for the determination **of O-acetate groups in bacterial** polysaccharides .
Hepler RW; Yu Ip CC
Department of Virus and Cell Biology, Merck Research Laboratories, West Point, PA 19486.
Journal of chromatography (NETHERLANDS) Sep 30 1994, 680 (1) p201-8, Journal Code: BXJ
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
Subfile: INDEX MEDICUS
Many bacterial polysaccharides possess O-linked acetate groups as constituents of their repeating units which often can serve as immunological determinants. It is therefore important to develop analytical methods for process monitoring as well as product characterization when

DIALOG(R)File 155:MEDLINE(R)

08062031 90203719 PMID: 2319166

Pneumococcal polysaccharide **vaccine in young adults and older bronchitics: determination of IgG responses by ELISA and the effect of adsorption of serum with non-type-specific cell wall** polysaccharide .

Musher DM; Luchi MJ; Watson DA; Hamilton R; Baughn RE

Medical Service (Infectious Disease Section), Veterans Administration Medical Center, Houston, TX 77030.

Journal of infectious diseases (UNITED STATES) Apr 1990, 161 (4) p728-35, ISSN 0022-1899 Journal Code: IH3

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: AIM; INDEX MEDICUS

Available pneumococcal vaccines provide only limited protection for certain at-risk populations. Fifteen healthy young adults and 11 older chronic bronchitics received 23-valent pneumococcal vaccine. ELISA showed that IgG reactive with capsular polysaccharides from Streptococcus pneumoniae serotypes 3, 4, 8, 14, and 19F increased after vaccination. Bronchitics exhibited lesser responses for four of these serotypes, although differences between the groups were significant only for serotype 3. Adsorption of postvaccination sera with pneumococcal cell wall polysaccharide significantly reduced mean antibody levels in both groups and lowered the proportion of sera that demonstrated type-specific antibody responses. Reactive IgG was largely restricted to the IgG2 subclass. Pneumococcal vaccine may provide suboptimal protection of older adults because antibody responses to some capsular polysaccharides are lower in elderly bronchitics than in healthy young adults. A substantial proportion of measured antibody reflects IgG reactive with cell wall polysaccharides rather than with type-specific, capsular constituents, suggesting that antibody responses in subjects of all ages deserve reappraisal.

Tags: Human; Male; Support, U.S. Gov't, Non-P.H.S.

Descriptors: Bacterial Vaccines--immunology--IM; *Bronchitis--immunology --IM; *IgG--biosynthesis--BI; *Polysaccharides, Bacterial--metabolism--ME; * **Streptococcus pneumoniae** --immunology--IM; Adsorption; Adult; Antibodies, Bacterial--biosynthesis--BI; Enzyme-Linked Immunosorbent Assay; Lung Diseases, Obstructive--immunology--IM; Middle Age; Pneumococcal Vaccines; Radioimmunoassay

CAS Registry No.: 0 (Antibodies, Bacterial); 0 (Bacterial Vaccines); 0 (IgG); 0 (Pneumococcal Vaccines); 0 (Polysaccharides, Bacterial); 0 (polysaccharide C-substance (Streptococcus))

Record Date Created: 19900427

26/9/146 (Item 17 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

07925026 93367253 PMID: 8360502

A modified enzyme-linked immunosorbent assay **for measuring type-specific anti-pneumococcal capsular** polysaccharide **antibodies.**

Konradsen HB; Sorensen UB; Henrichsen J

Department of Bacteriology, Statens Seruminstitut, Copenhagen, Denmark.

Journal of immunological methods (NETHERLANDS) Aug 26 1993, 164 (1) p13-20, ISSN 0022-1759 Journal Code: IFE

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: INDEX MEDICUS

We have developed an ELISA for antibody determination, superior to others hitherto described, in which optimal coating is achieved using phenylated pneumococcal capsular polysaccharides as coating antigen. The specificity of the assay is ensured by complete inhibition of antibodies against the species-specific pneumococcal antigen, C-polysaccharide (C-Ps). The method is sensitive, specific, reproducible, fast and easy to work with and can be used for both immunoglobulin class and subclass antibody determinations.

Tags: Human

Descriptors: Antibodies, Bacterial--analysis--AN; *Bacterial Capsules --immunology--IM; * **Streptococcus pneumoniae** --immunology--IM; Adult; Bacterial Vaccines--immunology--IM; Enzyme-Linked Immunosorbent Assay --methods--MT; IgG--analysis--AN

CAS Registry No.: 0 (Antibodies, Bacterial); 0 (Bacterial Capsules); 0 (Bacterial Vaccines); 0 (IgG)

Record Date Created: 19930928

26/9/147 (Item 18 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

07772399 91210571 PMID: 1826918

Detection **of capsular** polysaccharide **in serum for the diagnosis of pneumococcal pneumonia: clinical and experimental** evaluation .

Schaffner A; Michel-Harder C; Yeginsoy S

Department of Medicine, University of Zurich Medical School, Switzerland.

Journal of infectious diseases (UNITED STATES) May 1991, 163 (5) p1094-102, ISSN 0022-1899 Journal Code: IH3

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: AIM; INDEX MEDICUS

To improve diagnostic options for pneumococcal pneumonia, an ELISA system was developed that can detect less than or equal to 6 ng/ml capsular polysaccharide in serum. The test was limited to 39 serotypes causing greater than 95% of pneumococcal infections. In clinical evaluation the test identified 14 of 15 cases (missing one serotype not included). No false-positive reaction occurred. However, the duration and level of antigenemia were variable (greater than or equal to 500-2.5 ng/ml) and seemed not to depend solely on the severity of infection. Therefore, the question of whether the extent of antigenemia was determined by a serotype-dependent variation in the elimination rates of polysaccharides was investigated. Clearance rates for 12 serotypes varied in rabbits and rats by a factor of greater than 250. This remarkable variability appeared to affect the extent of clinical antigenemia. Thus, only very sensitive systems can detect circulating antigen from rapidly cleared polysaccharide serotypes. Furthermore, the question arises whether slow polysaccharide clearance contributes to the virulence of some pneumococcal serotypes.

Tags: Animal; Female; Human; Male; Support, Non-U.S. Gov't

Descriptors: Pneumonia, Pneumococcal--diagnosis--DI; *Polysaccharides, Bacterial--blood--BL; * **Streptococcus pneumoniae** ; Antigens, Bacterial --blood--BL; Enzyme-Linked Immunosorbent Assay; Predictive Value of Tests; Rabbits; Rats; Specific Pathogen-Free Organisms

CAS Registry No.: 0 (Antigens, Bacterial); 0 (Polysaccharides, Bacterial)

Record Date Created: 19910528

26/9/148 (Item 19 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

07763111 91068546 PMID: 2251893

An immunoenzyme system for determining **antibodies to Streptococcus pneumoniae** polysaccharides **in biological fluids]**

Immunofermentnaia sistema dlia opredeleniia antitel k polisakharidam Streptococcus pneumoniae v biologicheskikh zhidkostiakh.

Padiukov LN; Ulanova MA; Kuznetsova EM; Ksenofontova MK; Kulak IuV; Sharapova MKh; Baturo AP

Zhurnal mikrobiologii, epidemiologii, i immunobiologii (USSR) Jul 1990, (7) p59-65, ISSN 0372-9311 Journal Code: Y9O

Languages: RUSSIAN

Document type: Journal Article

Record type: Completed

Subfile: INDEX MEDICUS

The enzyme immunoassay (EIA) system for the determination of antibodies to capsular polysaccharides of pneumococci, serotypes 1, 3, 6B, 8, 9N, 15F,

23F, and C-polysaccharide has been developed on the basis of poly-L-lysin-modified antigens. The use of isotype-specific conjugates in this system permits the detection of IgG and IgA antibodies in different biological fluids: blood serum, pleural fluid, saliva, milk. Samples obtained from children with pneumococcal infection and from nursing mothers have been studied. As shown in this study, the EIA system can be used for the evaluation of the dynamics of pneumococcal infection in children.

Tags: Comparative Study; Human

Descriptors: Antibodies, Bacterial--analysis--AN; *Body Fluids --immunology--IM; *Polysaccharides, Bacterial--immunology--IM; * **Streptococcus pneumoniae** --immunology--IM; Adolescence; Child; Child, Preschool; Enzyme-Linked Immunosorbent Assay--methods--MT; Infant; Milk, Human--immunology--IM; Pneumonia, Pneumococcal--immunology--IM

CAS Registry No.: 0 (Antibodies, Bacterial); 0 (Polysaccharides, Bacterial)

Record Date Created: 19910116

26/9/149 (Item 20 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

07613504 92325202 PMID: 1624568

Enzyme immunoassay **for** detection **of immunoglobulin G (IgG), IgM, and IgA antibodies against type 6B pneumococcal capsular** polysaccharide **and cell wall C** polysaccharide **in chinchilla serum.**

Koskela M; Harris M; Giebink GS

Department of Medical Microbiology, University of Oulu, Finland.

Journal of clinical microbiology (UNITED STATES) Jun 1992, 30 (6) p1485-90, ISSN 0095-1137 Journal Code: HSH

Contract/Grant No.: 5P50-DC00133, DC, NIDCD

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: INDEX MEDICUS

Conjugation of the capsular polysaccharides of Streptococcus pneumoniae to protein carriers has introduced a new generation of pneumococcal vaccines which may be efficacious in preventing pneumococcal otitis media during infancy. The chinchilla model has been used extensively for studying the pathogenesis of pneumococcal otitis media and for testing the efficacy of early pneumococcal capsular polysaccharide (PCP) vaccines, but immunologic studies in the chinchilla have been limited by the lack of antibodies against specific immunoglobulin isotypes. By using affinity-purified rabbit immunoglobulin G (IgG) anti-chinchilla IgG, IgM, and IgA, we developed a sensitive enzyme immunoassay that is highly specific for IgG, IgM, and IgA antibodies against type 6B PCP (anti-6B) and against C polysaccharide in chinchilla serum. Antibody titers increased in serum from five chinchillas immunized with a type 6B outer membrane protein complex vaccine. Increases of anti-6B IgG and IgM antibody titers were more striking than increases of anti-6B IgA or anti-C polysaccharide IgG, IgM, or IgA titers were.

Tags: Animal; Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.

Descriptors: Antibodies, Bacterial--blood--BL; *Immunoglobulin Isotypes --blood--BL; *Polysaccharides, Bacterial--immunology--IM; * **Streptococcus pneumoniae** --immunology--IM; Bacterial Capsules--immunology--IM; Cell Wall --immunology--IM; Chinchilla; IgA--blood--BL; IgG--blood--BL; IgM--blood --BL; Immunoenzyme Techniques

CAS Registry No.: 0 (Antibodies, Bacterial); 0 (Bacterial Capsules); 0 (IgA); 0 (IgG); 0 (IgM); 0 (Immunoglobulin Isotypes); 0 (Polysaccharides, Bacterial)

Record Date Created: 19920807

26/9/150 (Item 21 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

07489082 92113321 PMID: 1765670

The immune response in the rat to Streptococcus pneumoniae type 3 and

MA 02115.
Journal of infectious diseases (UNITED STATES) Jun 1992, 165 Suppl 1 pS129-33, ISSN 0022-1899 Journal Code: IH3
Contract/Grant No.: AI-18125, AI, NIAID; AI-20738, AI, NIAID; AI-24996, AI, NIAID
Languages: ENGLISH
Document type: Clinical Trial; Controlled Clinical Trial; Journal Article ; Review; Review, Tutorial
Record type: Completed
Subfile: AIM; INDEX MEDICUS
A human hyperimmune globulin termed bacterial polysaccharide immune globulin (BPIG) has been prepared from plasma donors immunized with Haemophilus influenzae type b (Hib), pneumococcal, and meningococcal vaccines. At a dose of 0.5 ml/kg, BPIG increased levels of antibody to Hib by greater than 0.15 microgram/ml within 4-6 h and by 2-4 micrograms/ml at 72 h. Thereafter, antibody declined, with a mean half-life of 27 days. BPIG treatment of Apache infants did not impair their active antibody responses to concurrently administered diphtheria-tetanus-pertussis or Hib oligosaccharide-diptheria CRM197 conjugate vaccines. In high-risk Apache infants, BPIG given at 2, 6, and 10 months of age provided significant protection from invasive Hib infection during infancy. Thus, BPIG may have utility in the prevention of Hib infections in high-risk patients who cannot be immunized adequately with Hib conjugate vaccines. (21 Refs.)
Tags: Human; Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.
Descriptors: *Antibodies, Bacterial--biosynthesis--BI; *Bacterial Vaccines--therapeutic use--TU; *Haemophilus Infections--therapy--TH; *Haemophilus influenzae--immunology--IM; *Immunization, Passive; *Pneumococcal Infections--therapy--TH; Antibodies, Bacterial--blood--BL; Bacterial Vaccines--immunology--IM; Haemophilus Infections--prevention and control--PC; Immunoglobulins; Infant; Meningococcal Vaccines; Neisseria meningitidis--immunology--IM; Pneumococcal Infections --prevention and control--PC; Pneumococcal Vaccines; Polysaccharides, Bacterial--immunology --IM; **Streptococcus pneumoniae** --immunology--IM
CAS Registry No.: 0 (Antibodies, Bacterial); 0 (Bacterial Vaccines); 0 (Haemophilus influenzae type b polysaccharide vaccine); 0 (Immunoglobulins); 0 (Meningococcal Vaccines); 0 (Pneumococcal Vaccines); 0 (Polysaccharides, Bacterial); 0 (bacterial polysaccharide immune globulin)
Record Date Created: 19920625

26/9/154 (Item 25 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

07173721 92345299 PMID: 1726574
Detection **of pneumococcal capsular** polysaccharide **antigen in urine by counterimmunoelectrophoresis. Technical features and correlation with serotype]**
Deteccion de antigeno polisacarido capsular neumococico en orina por contrainmunoelectroforesis. Aspectos tecnicos y correlacion con el serotipo.
Coll P; Moreno C; Sanchez F; Navarro F; Vilamala A; Prats G
Servicio de Microbiologia, Hospital de la Santa Creu i Sant Pau, Barcelona.
Enfermedades infecciosas y microbiologia clinica (SPAIN) Dec 1991, 9 (10) p599-602, ISSN 0213-005X Journal Code: A10
Languages: SPANISH
Document type: Journal Article
Record type: Completed
Subfile: INDEX MEDICUS
The effectiveness of CIE in detecting capsular polysaccharide antigen of pneumococci in urine is revised. Using CIE, we studied urine samples from 57 patients with systemic pneumococcal infections, proved bacteriologically by means of isolation of the microorganisms from sterile sites. We compare the usefulness of CIE with the microorganism isolation from organic products. We also determine the sensitivity gain after passive diffusion at 4 degrees C and bright blue Coomasie staining (CBB R-250). We correlate the

CIE results with the serotype of isolated pneumococci. CIE was positive in 17 of all 35 pneumonia cases (48.6%), in 2 of all 5 bacteremias (40%), 4 of all 15 meningitis (26.7%) and in none of all two peritonitis. Direct urine examination was positive in 12 out of 23 patients with positive CIE (52.2%) and concentrated urine in 22 patients (95.6%). Passive diffusion at 4 degrees C and CBB R-250 stain increases the positive rate of the test. The correlation of serotype with our results is difficult due to the wide variety of serotypes identified. However, particular serotypes such (3, 4 or 8) had been identified with increased sensitivity. Global sensitivity of CIE in detecting capsular polysaccharide antigen in urine samples is not high enough (40.3%), even under the best circumstances. Antigen detection in urine is more sensitive than blood cultures, and therefore we believe that could be used in clinical microbiology laboratories until a more effective method is available.

Tags: Human

Descriptors: Antigens, Bacterial--urine--UR; *Counterimmunoelectrophoresis; *Pneumococcal Infections--urine--UR; *Polysaccharides, Bacterial--urine--UR; * **Streptococcus pneumoniae** --immunology--IM; Cold; Polysaccharides, Bacterial--immunology--IM; Rosaniline Dyes; Sensitivity and Specificity; Staining and Labeling; **Streptococcus pneumoniae** --classification--CL

CAS Registry No.: 0 (Antigens, Bacterial); 0 (Polysaccharides, Bacterial); 0 (Rosaniline Dyes); 78642-64-5 (Coomassie blue)

Record Date Created: 19920828

26/9/155 (Item 26 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

07172915 92200429 PMID: 1802383

Location and quantitation **of the sites of O-acetylation on the capsular** polysaccharide **from Streptococcus pneumoniae type 9V by 1H-n.m.r. spectroscopy: comparison with type 9A.**

Rutherford TJ; Jones C; Davies DB; Elliott AC

Chemistry Division, National Institute for Biological Standards & Control, Hertfordshire, Great Britain.

Carbohydrate research (NETHERLANDS) Sep 30 1991, 218 p175-84, ISSN 0008-6215 Journal Code: CNY

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: INDEX MEDICUS

The 1H-n.m.r. spectra of the Streptococcus pneumoniae type 9V (S68 in American nomenclature) capsular polysaccharide (PS) and its O-deacetylated derivative [which is structurally identical to the S. pneumoniae type 9A (S33) PS] were assigned using COSY, relayed-COSY, and 2D-NOESY experiments. The positions of the OAc groups in the alpha-GlcA, beta-ManNAc, and alpha-Glc residues of the native 9V PS were established using 2D-n.m.r. and chemical shift arguments, and the relative proportions of different O-acetylated species were estimated by integration of well-resolved 1H-n.m.r. signals. The locations of the OAc substituents differ from those previously reported. [formula: see text].

Tags: Comparative Study; Support, Non-U.S. Gov't

Descriptors: Bacterial Capsules--chemistry--CH; *Polysaccharides, Bacterial--chemistry--CH; * **Streptococcus pneumoniae** --chemistry--CH; Acetylation; Carbohydrate Sequence; Galactose--chemistry--CH; Glucose --chemistry--CH; Hexosamines--chemistry--CH; Magnetic Resonance Spectroscopy; Molecular Sequence Data

CAS Registry No.: 0 (Bacterial Capsules); 0 (Hexosamines); 0 (Polysaccharides, Bacterial); 2636-92-2 (mannosamine); 26566-61-0 (Galactose); 50-99-7 (Glucose)

Record Date Created: 19920428

26/9/156 (Item 27 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

06611111 89008809 PMID: 3049660

Human-isotype-specific enzyme immunoassay **for antibodies to pneumococcal** polysaccharides .

Shyamala GN; Roberton DM; Hosking CS

Immunology Department, Royal Children's Hospital, Parkville, Victoria, Australia.

Journal of clinical microbiology (UNITED STATES) Aug 1988, 26 (8) p1575-9, ISSN 0095-1137 Journal Code: HSH

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: INDEX MEDICUS

A simple enzyme immunoassay has been developed to allow the quantitation of the human response to immunization with pneumococcal polysaccharide. The assay uses the 14-valent vaccine (Pneumovax) as a convenient antigen to adsorb to the solid-phase microdilution plate wells and commercially available isotype-specific antibody conjugates. The results have been expressed as arbitrary pneumococcal polysaccharide antibody units by reading off a standard curve constructed by using heterogeneous pooled serum. All nonimmunized subjects tested had immunoglobulin G (IgG) antibodies present in serum. All six control subjects who were immunized with Pneumovax demonstrated an IgG response, and the majority responded with a rise in IgA- and IgM-specific antibody concentrations at a mean of 6 weeks postimmunization. Five out of six cord sera tested contained IgG antibodies only, which were present in concentrations similar to those seen in adults, whereas in 6- to 12-month-old infants only low levels of IgG and IgM and no IgA antibodies were detected. Serum taken from 10 hypogammaglobulinemic patients immediately prior to infusion of immunoglobulin showed low to negative IgG antibody concentrations, and no IgA or IgM antibody was present.

Tags: Human

Descriptors: Antibodies, Bacterial--analysis--AN; *Bacterial Vaccines --immunology--IM; *Immunoglobulin Isotypes--analysis--AN; * **Streptococcus pneumoniae** --immunology--IM; Adult; Antibodies, Bacterial--biosynthesis--BI ; IgA--analysis--AN; IgA--biosynthesis--BI; IgG--analysis--AN; IgG --biosynthesis--BI; IgM--analysis--AN; IgM--biosynthesis--BI; Immunization ; Immunoenzyme Techniques; Immunoglobulin Isotypes--biosynthesis--BI; Infant; Pneumococcal Vaccines; Polysaccharides, Bacterial--immunology--IM

CAS Registry No.: 0 (Antibodies, Bacterial); 0 (Bacterial Vaccines); 0 (IgA); 0 (IgG); 0 (IgM); 0 (Immunoglobulin Isotypes); 0 (Pneumococcal Vaccines); 0 (Polysaccharides, Bacterial)

Record Date Created: 19881123

26/9/157 (Item 28 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

06603941 88154439 PMID: 2831268

Subclass of individual IgA-secreting human lymphocytes. Investigation of in vivo pneumococcal polysaccharide **-induced and in vitro mitogen-induced blood B cells by monolayer plaque-forming cell** assays .

Heilmann C; Barington T; Sigsgaard T

Department of Paediatrics, Rigshospitalet, Copenhagen, Denmark.

Journal of immunology (UNITED STATES) Mar 1 1988, 140 (5) p1496-9, ISSN 0022-1767 Journal Code: IFB

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: AIM; INDEX MEDICUS

The subclass of individual human IgA B cells was investigated by means of monolayer plaque-forming cell assays permitting analysis of all IgA-secreting cells as well as of cells secreting IgA anti-pneumococcal polysaccharide antibody. Center cells were examined by indirect immunofluorescence staining with mouse mAb against either of the two IgA subclasses as primary antibodies and FITC-conjugated rabbit anti-mouse Ig as the second antibody. Blood lymphocytes spontaneously secreting IgA (mean 399/10(6) mononuclear cells) produced mainly IgA1 (73%). A similar distribution of subclasses was recorded among IgA-secreting blood cells in

PWM- and EBV-stimulated cultures. In contrast, a predominance of IgA2 (54%) was found among IgA-secreting cells (2531/10(6)) isolated from the blood 7 days after in vivo stimulation with pneumococcal polysaccharides, and a similar proportion (51%) of IgA2 producing cells was found among IgA anti-pneumococcal polysaccharide-secreting cells. It was thus confirmed that IgA1 is the predominant subclass of blood IgA-secreting cells in general. However, the high percentage of IgA2-secreting cells found after vaccination with pneumococcal polysaccharides suggests that these Ag have an unusually high ability to activate IgA2 B cells, or that the B cells stimulated originate from lymphatic tissues with a high frequency of IgA2 committed cells.

Tags: Human; Support, Non-U.S. Gov't

Descriptors: B-Lymphocytes--classification--CL; *Bacterial Vaccines --administration and dosage--AD; *Hemolytic Plaque Technique; *IgE --biosynthesis--BI; *Lymphocyte Transformation; * **Streptococcus pneumoniae** --immunology--IM; Adult; Antibody Specificity; B-Lymphocytes--immunology --IM; B-Lymphocytes--metabolism--ME; Binding Sites, Antibody; Herpesvirus 4, Human; IgE--classification--CL; Leukocytes, Mononuclear--immunology--IM; Leukocytes, Mononuclear--metabolism--ME; Middle Age; Pneumococcal Vaccines ; Pokeweed Mitogens

CAS Registry No.: 0 (Bacterial Vaccines); 0 (Binding Sites, Antibody) ; 0 (Pneumococcal Vaccines); 0 (Pokeweed Mitogens); 37341-29-0 (IgE)

Record Date Created: 19880420

26/9/158 (Item 29 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

06386244 86194736 PMID: 3516876

Quantitative **and qualitative analyses of serum antibodies elicited in adults by Haemophilus influenzae type b and pneumococcus type 6A capsular** polysaccharide **-tetanus toxoid conjugates.**

Schneerson R; Robbins JB; Parke JC; Bell C; Schlesselman JJ; Sutton A; Wang Z; Schiffman G; Karpas A; Shiloach J

Infection and immunity (UNITED STATES) May 1986, 52 (2) p519-28, ISSN 0019-9567 Journal Code: GO7

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: INDEX MEDICUS

Covalent binding to immunogenic proteins increases the immunogenicity of the capsular polysaccharides of Haemophilus influenzae type b (Hib) and pneumococcus type 6A (Pn6A). Conjugates composed of Hib, Pn6A, or the cross-reacting Escherichia coli K100 covalently bound to tetanus toxoid (TT) were injected into young adult volunteers. Local reactions were common and were probably due to Arthus reactivity mediated by the preexisting antibodies reacting with the TT component of the conjugates. Fever occurred in about 10% of the volunteers after the first injection; no volunteers had fever after the second injection. Similar levels of Hib or Pn6A antibodies were elicited by either 50- or 100-micrograms doses or by concurrent injection of two different conjugates (Hib-TT and Pn6A-TT or Hib-TT and K100-TT). The Hib-TT elicited about a 180-fold increase in Hib antibodies, and the Pn6A-TT conjugate elicited about an 8-fold increase in Pn6A antibodies after one injection. Booster reactions were not elicited in adults; similar levels of antibodies in the five experimental groups suggested that the responses elicited by the conjugates were maximal. A one-way cross-reaction was noted as Pn6A conjugates elicited rises of Hib antibodies in 13 of 20 volunteers; only 4 of 59 volunteers immunized with Hib-TT had increases in Pn6A antibodies. The preimmunization Hib antibodies were composed of immunoglobulin M (IgM), IgA, and IgG. The postimmunization sera showed an increase in all three isotypes; the elevation of the IgG was the highest of the three isotypes. Conjugate-induced antibodies to both the polysaccharide and TT exerted biological activities that have been correlated with immunity. Adsorption of the Hib-TT onto aluminium hydroxide resulted in higher levels and an earlier Hib antibody response in infant rhesus. These results encourage the evaluation of Hib and Pn6A conjugates in human children and infants.

An enzyme-linked immunosorbent assay (ELISA) was developed to measure specific IgG antibody levels to pneumococcal polysaccharide antigens in 300 children attending various hospital departments. By expressing the results as a specific binding index (SBI) of given high and low controls, good reproducibility was obtained. Serum levels of the antibodies were found to fall rapidly during the 1st year of life, plateau during the 2nd and then rise steadily, reaching adult levels by the 7th year.

Tags: Human

Descriptors: Antibodies, Bacterial--analysis--AN; *Enzyme-Linked Immunosorbent Assay--methods--MT; *Polysaccharides, Bacterial--immunology --IM; * **Streptococcus pneumoniae** --immunology--IM; Antigens, Bacterial --immunology--IM; Bacterial Vaccines--immunology--IM; Child; Dose-Response Relationship, Immunologic; Enzyme-Linked Immunosorbent Assay--standards--ST ; Patients

CAS Registry No.: 0 (Antibodies, Bacterial); 0 (Antigens, Bacterial); 0 (Bacterial Vaccines); 0 (Polysaccharides, Bacterial)

Record Date Created: 19880104

26/9/161 (Item 32 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

06173213 85158145 PMID: 3884655

Modification of a direct enzyme-linked immunosorbent assay **for the** detection **of immunoglobulin G and M antibodies to pneumococcal capsular** polysaccharide .

Messina JP; Hickox PG; Lepow ML; Pollara B; Venezia RA

Journal of clinical microbiology (UNITED STATES) Mar 1985, 21 (3) p390-4, ISSN 0095-1137 Journal Code: HSH

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: INDEX MEDICUS

In contrast to the usual indirect enzyme-linked immunosorbent assay (ELISA) method for detection of antibody responses, a modified direct ELISA technique was used to measure immunoglobulin G (IgG) and IgM responses to pneumococcal capsular types 1, 3, 9N, and 23F in humans. Individual capsular polysaccharides were covalently bound to poly-L-lysine before adsorption to the solid phase. The coupling reaction was enhanced by maintenance of a constant pH of 8.2 after the addition of all reactants. The evaluation of four diluents (phosphate-buffered saline [PBS]-Tween; PBS-Tween plus 10% fetal calf serum; PBS-Tween plus 10% bovine serum albumin; and PBS-Tween plus 20% normal goat serum) showed that the sensitivity and specificity of the assay was increased with normal goat serum (10-fold). Serum samples from 10 subjects immunized with polyvalent pneumococcal vaccine were tested by direct ELISA and by radioimmunoassay. At 4 weeks postimmunization, the ELISA method showed that IgG was the predominant antibody and that IgM responses were lower or had diminished. Isotype shifts during this period would have been undetected by the radioimmunoassay method. The changes in antibody response measured by ELISA were comparable to the radioimmunoassay results. The direct ELISA method for the detection of antipneumococcal capsular antibody has been found to be a sensitive and reproducible assay for the detection of IgG and IgM antibodies.

Tags: Human

Descriptors: Antibodies, Bacterial--analysis--AN; *Enzyme-Linked Immunosorbent Assay; *IgG--analysis--AN; *IgM--analysis--AN; *Immunoenzyme Techniques; *Polysaccharides, Bacterial--immunology--IM; * **Streptococcus pneumoniae** --immunology--IM; Radioimmunoassay

CAS Registry No.: 0 (Antibodies, Bacterial); 0 (IgG); 0 (IgM); 0 (Polysaccharides, Bacterial)

Record Date Created: 19850508

26/9/162 (Item 33 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

06137580 86060996 PMID: 4067315

An enzyme-linked immunosorbent assay **suitable for the routine estimation of specific immunoglobulin G responses to polyvalent pneumococcal** polysaccharide **vaccine in humans.**

Nieuwhof WN; Hodgen AN

Journal of immunological methods (NETHERLANDS) Nov 28 1985, 84 (1-2) p197-202, ISSN 0022-1759 Journal Code: IFE

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: INDEX MEDICUS

Antibodies to pneumococcal antigens have routinely been measured by radioimmunoassay (RIA). An enzyme-linked immunosorbent assay (ELISA) is proposed which is simpler and less expensive than RIA. The ELISA was used in a study involving a group of splenectomised patients and controls, to estimate the immunoglobulin G (IgG) response to 5 serotypic antigens (2, 7F, 9N, 14 and 23F) after immunisation with polyvalent pneumococcal polysaccharide vaccine. The 5 serotypic antigens were selected for their low optimum binding concentration and because they represented a range of clinical isolation rates in Western Australia (frequent, medium and rare). No significant difference could be found between the mean-fold increases of the 2 groups using Student's t-test. However, 6 out of 34 splenectomised patients failed to respond to any of the 5 serotypes, whereas no individual in the control group failed to yield a significant response to at least one serotype.

Tags: Human

Descriptors: Antibodies, Bacterial--analysis--AN; *Bacterial Vaccines --immunology--IM; *Enzyme-Linked Immunosorbent Assay--methods--MT; *IgG --analysis--AN; * **Streptococcus pneumoniae** --immunology--IM; Antigens, Bacterial--immunology--IM; Pneumococcal Infections--diagnosis--DI; Pneumococcal Infections--immunology--IM; Splenectomy

CAS Registry No.: 0 (Antibodies, Bacterial); 0 (Antigens, Bacterial); 0 (Bacterial Vaccines); 0 (IgG)

Record Date Created: 19860108

26/9/163 (Item 34 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

06008558 86151170 PMID: 4095445

Detection **of the** polysaccharide **pneumococcal antigen in CSF by the ELISA method]**

Decelarea antigenului polizaharid pneumococic in LCR prin metoda ELISA.

Mihalcu F; Stanescu L; Stanescu C; State D; Dumitrescu A; Stefanescu M; Szegli G

Revista de igiena, bacteriologie, virusologie, parazitologie, epidemiologie, pneumoftiziologie. Bacteriologia, virusologia, parazitologia, epidemiologia (ROMANIA) Oct-Dec 1985, 30 (4) p335-8, ISSN 0376-4494 Journal Code: S7C

Languages: ROMANIAN

Document type: Journal Article

Record type: Completed

Subfile: INDEX MEDICUS

Tags: Animal; Comparative Study; Human

Descriptors: Meningitis, Pneumococcal--immunology--IM; *Polysaccharides, Bacterial--cerebrospinal fluid--CF; * **Streptococcus pneumoniae** --immunology --IM; Agglutination Tests; Enzyme-Linked Immunosorbent Assay; Polysaccharides, Bacterial--blood--BL; Rabbits

CAS Registry No.: 0 (Polysaccharides, Bacterial)

Record Date Created: 19860408

26/9/164 (Item 35 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

05907788 88081460 PMID: 3691035

Pneumococcal antigens in sputa: ELISA for the detection **of pneumococcal**

C- polysaccharide **in sputa from pneumonia patients.**
Krook A; Holmberg H
Department of Infectious Diseases, Roslagstulls Hospital, Karolinska Institute, Stockholm, Sweden.
Diagnostic microbiology and infectious disease (UNITED STATES) May 1987, 7 (1) p73-5, ISSN 0732-8893 Journal Code: DMI
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
Subfile: INDEX MEDICUS
An improved ELISA, the LKB UltroBact Pneumococcus Kit detecting pneumococcal C-polysaccharide, has been tested. Sputum samples from 72 patients with community acquired pneumonia were included in the study. The sensitivity obtained was 96.1% and the specificity 92.6%. This ELISA might offer a useful diagnostic method in major clinical microbiologic laboratories for demonstrating Streptococcus pneumonia in sputa from patients with pneumonia.
Tags: Human; Support, Non-U.S. Gov't
Descriptors: Pneumonia, Pneumococcal--immunology--IM; *Polysaccharides, Bacterial--analysis--AN; *Sputum--immunology--IM; * **Streptococcus pneumoniae** --immunology--IM; Diagnosis, Differential; Enzyme-Linked Immunosorbent Assay--methods--MT; Pneumonia, Pneumococcal--diagnosis--DI
CAS Registry No.: 0 (Polysaccharides, Bacterial)
Record Date Created: 19880128

26/9/165 (Item 36 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

05897589 87190378 PMID: 3569255
A new coagglutination test **for** detecting **pneumococcal C-** polysaccharide .
Krook A; Holmberg H; Sjogren AM
European journal of clinical microbiology (GERMANY, WEST) Feb 1987, 6 (1) p68-9, ISSN 0722-2211 Journal Code: EMY
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
Subfile: INDEX MEDICUS
A new coagglutination test (PnC-CoA) for detecting pneumococcal C-polysaccharide (PnC) was compared with a commercial kit for detecting capsular polysaccharide using sputum samples from 105 patients with pneumonia. The sensitivity obtained with PnC-CoA was 95.8% and with the commercial kit 83.3%; the specificity was 96.5% and 91.2%, respectively. The PnC-CoA is simple to perform and it is a rapid, sensitive and specific test for detecting Streptococcus pneumoniae in sputa from adult patients with pneumonia.
Tags: Comparative Study; Human
Descriptors: *Antigens, Bacterial--analysis--AN; *Pneumonia, Pneumococcal --diagnosis--DI; *Polysaccharides, Bacterial--analysis--AN; *Sputum --analysis--AN; Agglutination Tests; Polysaccharides, Bacterial--immunology --IM; Predictive Value of Tests; Reagent Kits, Diagnostic; Sputum --microbiology--MI; **Streptococcus pneumoniae** --immunology--IM; **Streptococcus pneumoniae** --isolation and purification--IP
CAS Registry No.: 0 (Antigens, Bacterial); 0 (Polysaccharides, Bacterial); 0 (Reagent Kits, Diagnostic); 0 (polysaccharide C-substance (Streptococcus))
Record Date Created: 19870622

26/9/166 (Item 37 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

05897532 87188750 PMID: 3568596
Etiologic diagnosis of pneumonia by antigen detection : **crossreactions between pneumococcal C-** polysaccharide **and oral microorganisms.**
Sjogren AM; Holmberg H; Krook A

Diagnostic microbiology and infectious disease (UNITED STATES) Mar 1987 , 6 (3) p239-48, ISSN 0732-8893 Journal Code: DMI
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
Subfile: INDEX MEDICUS

Crossreactions between bacteria occurring more or less frequently in the respiratory tract were investigated using an enzyme-linked immunosorbent assay (ELISA) developed for the detection of pneumococcal C-polysaccharide. A collection of 218 strains was investigated: 30 Streptococcus pneumoniae, 120 alpha-streptococci, and 68 strains representing other species. Strong crossreactions were observed with 36% of the alpha-streptococci and with two of 11 Staphylococcus aureus strains. The collection of alpha-streptococci consisted of 90 fresh clinical isolates and 30 stock strains. Almost all crossreactions of alpha-streptococci were found among the clinical isolates. Among the stock strains only one of four Streptococcus mitis strains was positive. Pneumococcal C-polysaccharide and phosphorylcholine inhibited the reactions in ELISA with monoclonal antibodies against pneumococcal C-polysaccharide, as well as with a polyclonal antiserum against pneumococcal C-polysaccharide. We suggest that the cross reactions between alpha-streptococci and pneumococci depend on the presence of phosphorylcholine as a common antigenic determinant. The crossreaction in the ELISA with some Staphylococcus aureus strains may be explained by the presence of protein A binding to the Fc portion of the antibodies. When the 10 alpha-streptococci that showed the strongest crossreactions and ten pneumococci representing different types were tested in different concentrations the absorbance values were lower for most alpha-streptococci compared with the pneumococci. This explains that false positive results with alpha-streptococci do not seem to constitute a practical problem in this ELISA developed for detection of pneumococcal C-polysaccharide in samples from patients with pneumonia.

Tags: Human

Descriptors: Antigens, Bacterial--immunology--IM; *Pneumonia, Pneumococcal--diagnosis--DI; *Polysaccharides, Bacterial--immunology--IM; ***Streptococcus pneumoniae*** --immunology--IM; Antigens, Bacterial--analysis --AN; Cross Reactions; Enzyme-Linked Immunosorbent Assay; Staphylococcus aureus--immunology--IM; Streptococcus--immunology--IM

CAS Registry No.: 0 (Antigens, Bacterial); 0 (Polysaccharides, Bacterial); 0 (polysaccharide C-substance (Streptococcus))

Record Date Created: 19870605

26/9/167 (Item 38 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

05870473 86034503 PMID: 4056007

Determination **of antibodies to pneumococcal C** polysaccharide **in patients with community-acquired pneumonia.**

Holmberg H; Krook A; Sjogren AM

Journal of clinical microbiology (UNITED STATES) Nov 1985, 22 (5) p808-14, ISSN 0095-1137 Journal Code: HSH

Languages: ENGLISH
Document type: Journal Article
Record type: Completed
Subfile: INDEX MEDICUS

The pneumococcal C polysaccharide (PnC) is species specific and believed to be a cell wall component of all capsular types. Antibodies against PnC in human sera have been demonstrated previously, but the question of whether a rise in these antibodies occurs during pneumococcal infections has not been investigated. We used an indirect enzyme-linked immunosorbent assay (ELISA) for the estimation of PnC antibodies in 124 hospital-treated patients with pneumonia. In 3 of 6 patients with pneumococcal bacteremia and in 17 of 44 patients with S. pneumoniae isolated in the blood, sputum, or nasopharynx, a significant rise in antibody levels was recorded, accounting for a sensitivity of 38.6%. Of 35 patients with pneumonia of other known or suspected etiology, 1 gave a positive result, corresponding to a specificity of 97.1%. In addition, 3 of 8 patients with PnC antigen in

the sputum as the only etiological finding and 5 of 37 patients with unknown etiology gave positive results. The PnC antibodies did not seem to have any protective capacity against pneumonia caused by pneumococci. The ELISA, in which only one antigen preparation was used, was more simple than other tests in which traditional capsular antigen preparations are used. It might therefore be used as a supplemental method in the diagnosis of pneumococcal pneumonia. The problems involved in expressing serum titers obtained with the ELISA are discussed.

Tags: Human; Support, Non-U.S. Gov't

Descriptors: Antibodies, Bacterial--analysis--AN; *Pneumonia, Pneumococcal--microbiology--MI; *Polysaccharides, Bacterial--immunology--IM ; * **Streptococcus pneumoniae** --immunology--IM; Antibody Specificity; Enzyme-Linked Immunosorbent Assay; Phosphorylcholine--immunology--IM; Pneumonia, Pneumococcal--diagnosis--DI; Time Factors

CAS Registry No.: 0 (Antibodies, Bacterial); 0 (Polysaccharides, Bacterial); 107-73-3 (Phosphorylcholine)

Record Date Created: 19851219

26/9/168 (Item 39 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

05867028 85261882 PMID: 3874879

Detection **of C** polysaccharide **in Streptococcus pneumoniae in the sputa of pneumonia patients by an enzyme-linked immunosorbent** assay .

Holmberg H; Holme T; Krook A; Olsson T; Sjoberg L; Sjogren AM

Journal of clinical microbiology (UNITED STATES) Jul 1985, 22 (1) p111-5, ISSN 0095-1137 Journal Code: HSH

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: INDEX MEDICUS

The pneumococcal C polysaccharide (PnC) is species specific and believed to be a cell wall component of all pneumococcal types. A sandwich enzyme-linked immunosorbent assay (ELISA) for detection of PnC in sputa has been developed by using a monoclonal antiphosphorylcholine antibody and a polyclonal rabbit anti-PnC antiserum in the test system. A 1-year study of adult hospitalized patients with community-acquired pneumonia was performed. A total of 147 patients with clinical and radiological evidence for pneumonia were accepted for the study. Of these, 105 patients provided a sputum sample upon admission to the ward. The sputa were cultured semiquantitatively as well as tested for the presence of antigen. Of the sputum samples from patients with Streptococcus pneumoniae, 27 of 33 (accounting for a sensitivity of 82%) were positive in the ELISA test. Of the sputum samples from patients with pneumonia of some other known or suspected etiology, 32 of 34 (accounting for a specificity of 94%) were negative. In addition, 7 sputum samples from 31 patients with pneumonia of unknown etiology were positive. The ELISA test described here is in our opinion a sensitive and specific test for detecting PnC from S. pneumoniae in sputa from patients with untreated pneumonia.

Tags: Comparative Study; Human; Support, Non-U.S. Gov't

Descriptors: Antigens, Bacterial--analysis--AN; *Pneumonia, Pneumococcal --diagnosis--DI; *Polysaccharides, Bacterial--analysis--AN; *Sputum --microbiology--MI; * **Streptococcus pneumoniae** --analysis--AN; Adult; Antibodies, Monoclonal--diagnostic use--DU; Enzyme-Linked Immunosorbent Assay; Gram-Negative Bacteria--isolation and purification--IP; Haemophilus influenzae--isolation and purification--IP; Pneumonia, Pneumococcal --immunology--IM; Species Specificity; Sputum--immunology--IM; Staphylococcus aureus--isolation and purification--IP; **Streptococcus pneumoniae** --immunology--IM; **Streptococcus pneumoniae** --isolation and purification--IP

CAS Registry No.: 0 (Antibodies, Monoclonal); 0 (Antigens, Bacterial) ; 0 (Polysaccharides, Bacterial); 0 (polysaccharide C-substance (Streptococcus))

Record Date Created: 19850906

26/9/169 (Item 40 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

05864092 85192426 PMID: 3992202
Antibody response against the type specific capsular polysaccharide **in pneumococcal pneumonia** measured **by enzyme linked immunosorbent** assay .
Kalin M; Lindberg AA
Scandinavian journal of infectious diseases (SWEDEN) 1985, 17 (1) p25-32, ISSN 0036-5548 Journal Code: UCX
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
Subfile: INDEX MEDICUS
The enzyme linked immunosorbent assay (ELISA) was used for estimation of the IgG and IgM antibody responses against 13 type specific pneumococcal capsular polysaccharides, individually and in a pool, in 52 patients with pneumococcal pneumonia and in 20 control patients with non-pneumococcal pneumonia or enterobacterial septicemia. By use of the isolated type 3 polysaccharide as antigen a greater than or equal to 50% increase in absorbance from acute to convalescence phase serum, equivalent to a doubling in antibody titer, was seen significantly more often in 22 patients with type 3 pneumococcal pneumonia than in the 20 control patients (for IgG 14 vs. 3, p less than 0.01; for IgM 14 vs. 4, p less than 0.01). However, for an acceptable degree of specificity to be obtained (less than or equal to 10% control patients positive) a doubling of the IgG or IgM absorbance values had to be demanded. With this criterium only half of the patients infected with pneumococcal types included in the antigen set up used, showed a type specific antibody response and only one third of all patients with pneumococcal pneumonia could be diagnosed by use of the 13 polysaccharides as a pool antigen.
Tags: Human
Descriptors: Antibodies, Bacterial--biosynthesis--BI; *Pneumonia, Pneumococcal--immunology--IM; *Polysaccharides, Bacterial--immunology--IM; * **Streptococcus pneumoniae** --immunology--IM; Adolescence; Adult; Aged; Enzyme-Linked Immunosorbent Assay; IgG--biosynthesis--BI; IgM--biosynthesis --BI; Middle Age
CAS Registry No.: 0 (Antibodies, Bacterial); 0 (IgG); 0 (IgM); 0 (Polysaccharides, Bacterial); 0 (pneumococcal polysaccharide, type III)
Record Date Created: 19850531

26/9/170 (Item 41 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

05178897 88116727 PMID: 3339246
Measurement **of the humoral immune response against Streptococcus pneumoniae type 3 capsular** polysaccharide **and oligosaccharide containing antigens by ELISA and ELISPOT techniques.**
Zigterman GJ; Verheul AF; Ernste EB; Rombouts RF; De Reuver MJ; Jansze M; Snippe H; Willers JM
Laboratory of Microbiology, Department of Experimental Immunology, Utrecht, The Netherlands.
Journal of immunological methods (NETHERLANDS) Jan 21 1988, 106 (1) p101-7, ISSN 0022-1759 Journal Code: IFE
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
Subfile: INDEX MEDICUS
A sensitive ELISA has been developed to study immune responses in mice against Streptococcus pneumoniae type 3 capsular polysaccharide (S3PS) and hexasaccharide (HS)-protein conjugates derived therefrom. An advantage of the described system is that the same microtiter plates can be used for both ELISA and ELISPOT tests with a standardized washing procedure and diluent composition. S3PS induced predominantly IgM antibodies and minute amounts of IgG as measured by ELISA in serum. This was accompanied by large numbers (greater than 14000) of IgM spot-forming cells in the spleen. A shift towards IgG production was achieved by addition of lipid A.

HS-protein conjugates induced predominantly IgG antibodies after booster immunization(s). Furthermore these conjugates induced large numbers (greater than 40000) of IgG spot-forming cells (SFC) in the spleen. ELISA and ELISPOT assays on microtiter plates are both reliable and highly reproducible assays for the evaluation of immune responses to S. pneumoniae antigens.

Tags: Animal; Female; Support, Non-U.S. Gov't

Descriptors: Antibodies, Bacterial--biosynthesis--BI; *Antigens, Bacterial--immunology--IM; *Enzyme-Linked Immunosorbent Assay; *Oligosaccharides--immunology--IM; *Polysaccharides, Bacterial--immunology --IM; * **Streptococcus pneumoniae** --immunology--IM; Antibodies, Bacterial --analysis--AN; Antibody Specificity; Antibody-Producing Cells; Antigens, Bacterial--analysis--AN; Antigens, Bacterial--standards--ST; Enzyme-Linked Immunosorbent Assay--standards--ST; IgG--biosynthesis--BI; IgM --biosynthesis--BI; Leukocyte Count; Mice; Polysaccharides, Bacterial --standards--ST

CAS Registry No.: 0 (Antibodies, Bacterial); 0 (Antigens, Bacterial); 0 (IgG); 0 (IgM); 0 (Oligosaccharides); 0 (Polysaccharides, Bacterial); 0 (pneumococcal polysaccharide, type III)

Record Date Created: 19880308

26/9/171 (Item 42 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

04931599 85213520 PMID: 4000134

Comparison of an enzyme-linked immunosorbent assay **with radioimmunoassay for the** measurement **of pneumococcal capsular** polysaccharide **antibodies.**

Katz MA; Schiffman G

Molecular immunology (ENGLAND) Mar 1985, 22 (3) p313-9, ISSN 0161-5890 Journal Code: NG1

Contract/Grant No.: N01 026427, PHS

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: INDEX MEDICUS

An enzyme-linked immunosorbent assay (ELISA) has been developed to measure antibodies against pneumococcal polysaccharides of the IgA, IgG and IgM isotypes. Antibodies against pneumococcal polysaccharide types 1, 3, 6A, 8 and 9N were measured by ELISA and radioimmunoassay. Similar antibody responses were observed when comparing both assays. The study included 39 persons at high risk of developing pneumococcal infection and 13 healthy adults. Within 1 month after immunization IgM was the principle isotype. After 1 month, IgG was the principle isotype. Very low levels of IgA were detected in the post-immunization serum. The ELISA procedure described can be used to study the immune response to pneumococcal vaccines.

Tags: Comparative Study; Female; Human; Male; Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.

Descriptors: Antibodies, Bacterial--analysis--AN; *Polysaccharides, Bacterial--immunology--IM; * **Streptococcus pneumoniae** --immunology--IM; Adolescence; Adult; Aged; Child; Child, Preschool; Enzyme-Linked Immunosorbent Assay; IgA--analysis--AN; IgG--analysis--AN; IgM--analysis --AN; Middle Age; Radioimmunoassay

CAS Registry No.: 0 (Antibodies, Bacterial); 0 (IgA); 0 (IgG); 0 (IgM); 0 (Polysaccharides, Bacterial)

Record Date Created: 19850710

26/9/172 (Item 43 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

04882152 85024634 PMID: 6488199

Structural determination **of the capsular** polysaccharide **of Streptococcus pneumoniae type 18C (56).**

Lugowski C; Jennings HJ

Carbohydrate research (NETHERLANDS) Aug 1 1984, 131 (1) p119-29,

ISSN 0008-6215 Journal Code: CNY
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
Subfile: INDEX MEDICUS
The specific capsular polysaccharide of Streptococcus pneumoniae type 18C (56) contains D-glucose, D-galactose, L-rhamnose, and glycerol residues, and phosphate and O-acetyl groups in the molar ratios of 3:1:1:1:1:1. Accumulated data from methylation analyses of the native and the specifically degraded, native polysaccharide indicated that it is composed of the repeating unit shown; it also contains O-acetyl groups, of undetermined location, in the molar ratio to L-rhamnose of 1:1. (formula; see text).
Descriptors: Polysaccharides, Bacterial--isolation and purification--IP; * **Streptococcus pneumoniae** --immunology--IM; Carbohydrate Conformation; Carbohydrate Sequence; Galactose--analysis--AN; Glucose--analysis--AN; Glycerol--analysis--AN; Phosphates--analysis--AN; Rhamnose--analysis--AN
CAS Registry No.: 0 (Phosphates); 0 (Polysaccharides, Bacterial); 10485-94-6 (Rhamnose); 26566-61-0 (Galactose); 50-99-7 (Glucose); 56-81-5 (Glycerol)
Record Date Created: 19841203

26/9/173 (Item 44 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

04818629 84134439 PMID: 6199306
Phosphorylcholine determinants **in six pneumococcal capsular** polysaccharides detected **by monoclonal antibody.**
Sorensen UB; Agger R; Bennedsen J; Henrichsen J
Infection and immunity (UNITED STATES) Mar 1984, 43 (3) p876-8, ISSN 0019-9567 Journal Code: GO7
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
Subfile: INDEX MEDICUS
The presence of phosphorylcholine in pneumococcal capsular polysaccharides was examined by using monoclonal antiphosphorylcholine antibody. Of the 83 known capsular types of Streptococcus pneumoniae, 6 types, viz., 24A, 27, 28F, 28A, 32F, and 32A, gave a positive capsular reaction (quellung) which could be inhibited by phosphorylcholine. The capsular polysaccharides of these six types, therefore, contain phosphorylcholine.
Tags: Animal; Female
Descriptors: *Antibodies, Monoclonal--immunology--IM; *Antigens, Bacterial--immunology--IM; *Choline--analogs and derivatives--AA; *Phosphorylcholine--immunology--IM; *Polysaccharides, Bacterial--immunology --IM; Antibodies, Bacterial--biosynthesis--BI; Antibodies, Bacterial --immunology--IM; Antibodies, Monoclonal--biosynthesis--BI; Epitopes --immunology--IM; Mice; Mice, Inbred BALB C; Rabbits; **Streptococcus pneumoniae** --immunology--IM
CAS Registry No.: 0 (Antibodies, Bacterial); 0 (Antibodies, Monoclonal); 0 (Antigens, Bacterial); 0 (Epitopes); 0 (Polysaccharides, Bacterial); 0 (polysaccharide C-substance (Streptococcus)); 107-73-3 (Phosphorylcholine); 62-49-7 (Choline)
Record Date Created: 19840424

26/9/174 (Item 45 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

04783570 80222334 PMID: 6155983
Structural determination **and serology of the native** polysaccharide **antigen of type-III group B Streptococcus.**
Jennings HJ; Rosell KG; Kasper DL
Canadian journal of biochemistry (CANADA) Feb 1980, 58 (2) p112-20, ISSN 0008-4018 Journal Code: CHN

Languages: ENGLISH
Document type: Journal Article
Record type: Completed
Subfile: INDEX MEDICUS
Tags: Support, U.S. Gov't, P.H.S.
Descriptors: *Antigens, Bacterial; *Polysaccharides--immunology--IM; *Streptococcus agalactiae--immunology--IM; Carbohydrate Conformation; Carbohydrate Sequence; Epitopes; Hydrogen-Ion Concentration; Methylation; **Streptococcus pneumoniae** --immunology--IM
CAS Registry No.: 0 (Antigens, Bacterial); 0 (Epitopes); 0 (Polysaccharides)
Record Date Created: 19800928

26/9/175 (Item 46 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

04774845 81008011 PMID: 6157748
Direct demonstration of specific suppressor T cells in the mice tolerant to type III pneumococcal polysaccharide : **two-step requirement for development of** detectable **suppressor cells.**
Braley-Mullen H
Journal of immunology (UNITED STATES) Oct 1980, 125 (4) p1849-54, ISSN 0022-1767 Journal Code: IFB
Contract/Grant No.: AI-00322, AI, NIAID; CA 25054, CA, NCI
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
Subfile: AIM; INDEX MEDICUS
Spleen cells from CAF1 mice made tolerant to type III pneumococcal polysaccharide (S3) with S3 coupled to syngeneic spleen cells (S3-SC) develop S3-specific suppressor T cells (Ts). These Ts could be demonstrated consistently only when spleen cells from tolerant mice were cultured in vitro with the specific antigen and the specific tolerogen. Spleen cells from normal mice cultured under the same conditions did not suppress the antibody response to S3. When different numbers of Ts were transferred to normal CAF1 mice, an unusual dose-effect pattern was observed. Maximal suppression of the S3 response occurred when relatively low numbers of Ts, 3 to 30 x 10(5) per recipient, were transferred, whereas larger numbers of cells, 150 x 10(5) per recipient, were not suppressive. These results indicate that a presumably T-independent antigen, S3, can activate antigen-specific Ts. These Ts exhibit unusual dose effects upon transfer and require both an in vivo induction period and in vitro activation for development of maximal activity. These latter observations suggest that S3 may activate a different population of T cells with suppressor function than do conventional T-dependent antigens. The loss of suppression observed when greater than optimal numbers of cells were transferred suggests that a second type of T cell, which has the ability to 'neutralize' the activity of S3-specific Ts, is also induced in the same spleen cell population.
Tags: Animal; Female; Support, U.S. Gov't, P.H.S.
Descriptors: Immune Tolerance; *Polysaccharides, Bacterial--immunology --IM; * **Streptococcus pneumoniae** --immunology--IM; *T-Lymphocytes --immunology--IM; Cells, Cultured; Dose-Response Relationship, Immunologic; Epitopes; Immunization, Passive; Mice; Spleen--immunology--IM
CAS Registry No.: 0 (Epitopes); 0 (Polysaccharides, Bacterial)
Record Date Created: 19801125

26/9/176 (Item 47 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

04653226 83161167 PMID: 6403547
The quantitative **immunochemical** determination **of pneumococcal and meningococcal capsular** polysaccharides **by light scattering rate nephelometry.**
Lee CJ
Journal of biological standardization (ENGLAND) Jan 1983, 11 (1)

p55-64, ISSN 0092-1157 Journal Code: HJD
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
Subfile: INDEX MEDICUS

A quantitative nephelometric method was used for the measurement of the individual pneumococcal, as well as meningococcal, polysaccharides in the polyvalent vaccine final containers. This method is simple, rapid, inexpensive, and provides both qualitative and quantitative analyses of the polyvalent polysaccharide vaccines. By this method the individual pneumococcal types, 1, 2, 3, 4, 6A, 7F, 8, 9N, 12F, 14, 18C, 19F, 23F and 25 polysaccharides, were found to be present at 90-114% of the manufacturer's indicated concentrations; meningococcal group A, C, Y and W135 polysaccharides were at 90-108% of the manufacturer's listed concentrations. This nephelometric method coupled with gel filtration can also be used for measurement of the molecular sizes or stability of individual polysaccharides in the final container. Pneumococcal polysaccharide types 3, 6A, 9N and 19F, used as representative types, were treated with 0.5 N hydrochloric acid. The molecular sizes for types 3 and 9 N polysaccharides were stable to acid treatment. In contrast, types 6A and 19F polysaccharides were degraded. Heating meningococcal groups A, C, Y and W135 polysaccharides at 37 degrees C for 48 h did not affect their molecular size in the polyvalent vaccine.

Descriptors: Neisseria meningitidis--analysis--AN; *Polysaccharides, Bacterial--analysis--AN; * **Streptococcus pneumoniae** --analysis--AN; Antibodies, Bacterial--analysis--AN; Bacterial Vaccines; Immunochemistry; Light; Molecular Weight; Neisseria meningitidis--immunology--IM; Nephelometry and Turbidimetry--methods--MT; Scattering, Radiation; **Streptococcus pneumoniae** --immunology--IM

CAS Registry No.: 0 (Antibodies, Bacterial); 0 (Bacterial Vaccines); 0 (Polysaccharides, Bacterial)

Record Date Created: 19830527

26/9/177 (Item 48 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

04578374 85031857 PMID: 6491302

Comparison between enzyme-linked immunosorbent assay **(ELISA) and diffusion-in-gel enzyme-linked immunosorbent** assay **(DIG-ELISA) for** detection **of antibodies to pneumococcal** polysaccharides .

Berntsson E

Journal of immunological methods (NETHERLANDS) Oct 12 1984, 73 (1) p226-7, ISSN 0022-1759 Journal Code: IFE

Languages: ENGLISH
Document type: Letter
Record type: Completed
Subfile: INDEX MEDICUS

Descriptors: *Antibodies, Bacterial--analysis--AN; Antigens, Bacterial --analysis--AN; Enzyme-Linked Immunosorbent Assay; Polysaccharides, Bacterial--immunology--IM; **Streptococcus pneumoniae** --immunology--IM

CAS Registry No.: 0 (Antibodies, Bacterial); 0 (Antigens, Bacterial); 0 (Polysaccharides, Bacterial)

Record Date Created: 19841127

26/9/178 (Item 49 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

04448761 82180016 PMID: 6803612

Quantitation **of acidic capsular** polysaccharides **by Alcian blue binding.**

Powell KR; Hendley JO; Pohl KE; Freidberg A; Volk WA

Analytical biochemistry (UNITED STATES) Jan 1 1982, 119 (1) p31-7, ISSN 0003-2697 Journal Code: 4NK

Contract/Grant No.: 5-27158, PHS; AI-14240, AI, NIAID

Languages: ENGLISH

Document type: Journal Article
Record type: Completed
Subfile: INDEX MEDICUS
Tags: Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.
Descriptors: *Alcian Blue--diagnostic use--DU; *Indoles--diagnostic use --DU; *Polysaccharides, Bacterial--analysis--AN; Chemistry; Haemophilus influenzae--analysis--AN; Magnesium; Magnesium Chloride; Neisseria meningitidis--analysis--AN; **Streptococcus pneumoniae** --analysis--AN
CAS Registry No.: 0 (Indoles); 0 (Polysaccharides, Bacterial); 12040-44-7 (Alcian Blue); 7439-95-4 (Magnesium); 7786-30-3 (Magnesium Chloride)
Record Date Created: 19820621

26/9/179 (Item 50 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

04426697 82191033 PMID: 7042846
The presence of sialic acid on two related bacterial polysaccharides determines **the site of the primary immune response and the effect of complement depletion on the response in mice.**
Markham RB; Nicholson-Weller A; Schiffman G; Kasper DL
Journal of immunology (UNITED STATES) Jun 1982, 128 (6) p2731-3, ISSN 0022-1767 Journal Code: IFB
Contract/Grant No.: AI13249, AI, NIAID; AI72538, AI, NIAID; NO1026427, PHS
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
Subfile: AIM; INDEX MEDICUS
We have examined the antibody responses in mice to two structurally similar antigens: the capsular polysaccharide of type 3 group B streptococci (sssGBS 3) and the capsular polysaccharide of type 14 pneumococci (sssPn 14), which differ only in the presence of a terminal sialic acid on the side chain of the former. The cells that produce antibody to the nonsialated antigen (sssPn 14) reside in the spleen, whereas the cells that produce antibody to the sialated antigen (sssGBS 3) do not. Cobra venom factor treatment of the mice before immunization abrogates the antibody response to the nonsialated antigen, but does not affect the response to the sialated antigen.
Tags: Animal; Female; Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.
Descriptors: Polysaccharides, Bacterial--immunology--IM; *Sialic Acids --pharmacology--PD; *Streptococcus agalactiae--immunology--IM; * **Streptococcus pneumoniae** --immunology--IM; Antibodies, Bacterial --biosynthesis--BI; Antibody-Producing Cells--immunology--IM; Cobra Venoms --pharmacology--PD; Complement--deficiency--DF; Mice; Mice, Inbred BALB C; Spleen--immunology--IM; Splenectomy
CAS Registry No.: 0 (Antibodies, Bacterial); 0 (Cobra Venoms); 0 (Polysaccharides, Bacterial); 0 (Sialic Acids); 0 (cobra venom factor) ; 9007-36-7 (Complement)
Record Date Created: 19820708

26/9/180 (Item 51 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

04426640 82190300 PMID: 7042742
Detection **of antibodies to pneumococcal capsular** polysaccharides **by enzyme-linked immunosorbent** assay .
Pedersen FK; Henrichsen J
Journal of clinical microbiology (UNITED STATES) Mar 1982, 15 (3) p372-8, ISSN 0095-1137 Journal Code: HSH
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
Subfile: INDEX MEDICUS

An enzyme-linked immunosorbent assay for the detection of immunoglobulin G, M, and A antibodies against each of the 14 polysaccharide antigens contained in a contemporary pneumococcal vaccine is described. A mean total antibody fold increase above 2 from prevaccination to 4 weeks postvaccination serum samples was found for all antigens in 12 healthy adults and 6 children. Fifty-five percent of all single fold increases determined were above 2 in the adults; the value was 64% in children. Type-specific polysaccharide antibody of the immunoglobulin G class was predominant in 4 weeks postvaccination serum samples. Further studies with assays such as the one described may lead to a better understanding of the immune response to pneumococcal polysaccharides in both normal subjects and patients at increased risk of pneumococcal infection.

Tags: Animal; Support, Non-U.S. Gov't

Descriptors: Antibodies, Bacterial--analysis--AN; *Enzyme-Linked Immunosorbent Assay; *Immunoenzyme Techniques; *Polysaccharides, Bacterial --immunology--IM; * **Streptococcus pneumoniae** --immunology--IM; Rabbits; Radioimmunoassay

CAS Registry No.: 0 (Antibodies, Bacterial); 0 (Polysaccharides, Bacterial)

Record Date Created: 19820722

26/9/181 (Item 52 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

04306438 82266234 PMID: 7107861

Measurement **of immunoglobulin G and M antibodies to type 3 pneumococcal capsular** polysaccharide **by enzyme-linked immunosorbent** assay .

Carlson BA; Giebink GS; Spika JS; Gray ED

Journal of clinical microbiology (UNITED STATES) Jul 1982, 16 (1) p63-9, ISSN 0095-1137 Journal Code: HSH

Contract/Grant No.: AI-14160-02, AI, NIAID; NS-14538, NS, NINDS

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: INDEX MEDICUS

An enzyme-linked immunosorbent assay was developed to measure immunoglobulin G (IgG) and IgM type 3 antipneumococcal capsular polysaccharide antibodies. The use of Fab2 fragments of rabbit antipneumococcal IgG antibody in the antibody-antigen sandwich increased the sensitivity for measuring IgM antibodies and decreased background activity in antigen-free cuvettes. This methodology detected type 3 IgM antibody responses in six of six subjects vaccinated with polyvalent pneumococcal vaccine and detected type 3 IgG antibody responses in three subjects. Results of the enzyme-linked immunosorbent assay and radioimmunoassay procedures were concordant, and postvaccination enzyme-linked immunosorbent assay IgM titers showed a stronger correlation with total radioimmunoassay antibody than did postvaccination ELISA IgG titers.

Tags: Female; Human; Male; Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.

Descriptors: IgG--analysis--AN; *IgM--analysis--AN; *Polysaccharides, Bacterial--immunology--IM; * **Streptococcus pneumoniae** --immunology--IM; Adult; Enzyme-Linked Immunosorbent Assay; **Streptococcus pneumoniae** --isolation and purification--IP; Vaccines

CAS Registry No.: 0 (IgG); 0 (IgM); 0 (Polysaccharides, Bacterial); 0 (Vaccines); 0 (pneumococcal polysaccharide, type III)

Record Date Created: 19821021

26/9/182 (Item 53 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

04306426 82266192 PMID: 7107848

Detection **of "neutral" type 7F and type 14 pneumococcal capsular** polysaccharides **by immunoelectrophoresis.**

Szu SC; Oravec LS

Journal of clinical microbiology (UNITED STATES) Jun 1982, 15 (6) p1172-5, ISSN 0095-1137 Journal Code: HSH
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
Subfile: INDEX MEDICUS
Type 7F and type 14 pneumococcal capsular polysaccharides, neutral at pH 8.6, were studied by immunoelectrophoresis at pH 5. Three techniques were used: rocket, countercurrent, and reversed immunoelectrophoresis. Our results show that these two capsular polysaccharides types can be detected at pH 5 with high sensitivity.
Descriptors: Polysaccharides, Bacterial--analysis--AN; * **Streptococcus pneumoniae** --immunology--IM; Counterimmunoelectrophoresis; Hydrogen-Ion Concentration; Immunoelectrophoresis
CAS Registry No.: 0 (Polysaccharides, Bacterial)
Record Date Created: 19821021

26/9/183 (Item 54 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

04202363 81166887 PMID: 7216443
Evaluation **of the role of the pneumococcal Forssman antigen (F-** polysaccharide **) in the cross-serotype protection induced by pneumococcal subcellular preparations.**
Au CC; Einsenstein TK
Infection and immunity (UNITED STATES) Jan 1981, 31 (1) p169-73, ISSN 0019-9567 Journal Code: GO7
Contract/Grant No.: AI-11860, AI, NIAID
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
Subfile: INDEX MEDICUS
We tested the hypothesis that the capacity of subcellular preparations of rough pneumococci to give cross-serotype protection is due to the presence of the pneumococcal Forssman antigen (F-polysaccharide). We found by hemagglutination inhibition that the Forssman antigen is present in the subcellular extracts. However, we concluded that the Forssman antigen is not the protective immunogen in the pneumococcal subcellular preparation, since absorption with sheep erythrocytes failed to remove the protective capacity from antiserum raised against the vaccine. Other evidence mitigating against the pneumococcal Forssman antigen being the protective immunogen included the absence of a detectable hemolytic titer in protective antiserum raised against the subcellular preparation, the failure of high-titered sheep hemolysin to passively protect mice against pneumococcal infection, and the failure of purified F-polysaccharide to immunize mice against pneumococcal infection.
Tags: Animal; Female; Support, U.S. Gov't, P.H.S.
Descriptors: Antigens, Bacterial--immunology--IM; *Bacterial Vaccines --immunology--IM; *Forssman Antigen--immunology--IM; *Pneumococcal Infections--immunology--IM; * **Streptococcus pneumoniae** --immunology--IM; Cross Reactions; Immunization, Passive; Mice; Ribosomes--immunology--IM; Serotyping; **Streptococcus pneumoniae** --classification--CL; Subcellular Fractions--immunology--IM
CAS Registry No.: 0 (Antigens, Bacterial); 0 (Bacterial Vaccines); 9013-60-9 (Forssman Antigen)
Record Date Created: 19810623

26/9/184 (Item 55 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

04191778 81142386 PMID: 7204414
Quantitative determination **of pneumococcal capsular** polysaccharides **in the polyvalent vaccine. I. Standardization of an immunoelectrophoretic method.**
Lee CJ; Pearson SJ; Robbins JB

Journal of biological standardization (ENGLAND) 1980, 8 (4) p271-80, ISSN 0092-1157 Journal Code: HJD
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
Subfile: INDEX MEDICUS
Descriptors: Bacterial Vaccines--analysis--AN; *Immunoelectrophoresis; *Polysaccharides, Bacterial--analysis--AN; * **Streptococcus pneumoniae** ; Antibodies, Bacterial; Cell Membrane--analysis--AN; **Streptococcus pneumoniae** --ultrastructure--UL
CAS Registry No.: 0 (Antibodies, Bacterial); 0 (Bacterial Vaccines); 0 (Polysaccharides, Bacterial)
Record Date Created: 19810528

26/9/185 (Item 56 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

04134142 84156368 PMID: 6671199
Structural determination **of the capsular** polysaccharide **of Streptococcus pneumoniae type 19A (57).**
Katzenellenbogen E; Jennings HJ
Carbohydrate research (NETHERLANDS) Dec 23 1983, 124 (2) p235-45, ISSN 0008-6215 Journal Code: CNY
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
Subfile: INDEX MEDICUS
The structure of the Pneumococcus type 19A (57) capsular polysaccharide has been reinvestigated by using methylation analysis and n.m.r. spectroscopy. It is composed of residues of 2-acetamido-2-deoxy-D-mannose, D-glucose, L-rhamnose, and phosphate in the molar ratios of 1:1:1:1. The polysaccharide is linear, and is composed of these components in a repeating unit of the following structure. ---- 4)-beta-D-ManpNAc-(1 ---- 4)-alpha-D-Glcp-(1 ---- 3)-alpha-L- Rhap-(1-PO4-) ---- The type 19A polysaccharide (Na+ salt) was depolymerized by heating it in water at 100 degrees, conditions that also hydrolyzed the newly formed phosphoric monoesters.
Descriptors: Polysaccharides, Bacterial--analysis--AN; * **Streptococcus pneumoniae** --analysis--AN; Carbohydrate Sequence; Magnetic Resonance Spectroscopy; Methylation
CAS Registry No.: 0 (Polysaccharides, Bacterial)
Record Date Created: 19840502

26/9/186 (Item 57 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

03915076 84048416 PMID: 6356780
Comparison of enzyme-linked immunosorbent assay **and radioimmunoassay for** determination **of anti-pneumococcal** polysaccharide **antibodies.**
Pedersen FK; Henrichsen J; Schiffman G
Acta pathologica, microbiologica, et immunologica Scandinavica. Section C, Immunology (DENMARK) Aug 1983, 91 (4) p251-5, ISSN 0108-0202 Journal Code: 1OP
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
Subfile: INDEX MEDICUS
Antibodies against pneumococcal capsular polysaccharide types 1, 3, 6A, 7F, 8 and 9N were determined before and 4 weeks after pneumococcal vaccination by both enzyme-linked immunosorbent assay (ELISA) and radioimmunoassay (RIA) in 49 children, 42 of whom had been splenectomized. Using linear regression analysis a significant correlation between total antibody concentrations determined by ELISA and RIA was found for all 6 antigens (p less than 0.001 for each). The degree of correlation varied between types, antibodies against type 3 showing the best concordance,

those against type 6A the poorest. In 84% of the samples assayed both the RIA and the ELISA determined antibody concentrations were either above (55%) or below (29%) the hypothetical protective antibody concentration.
Tags: Comparative Study; Female; Human; Male; Support, Non-U.S. Gov't
Descriptors: Antibodies, Bacterial--analysis--AN; *Enzyme-Linked Immunosorbent Assay; *Immunoenzyme Techniques; *Radioimmunoassay; * **Streptococcus pneumoniae** --immunology--IM; Adolescence; Bacterial Vaccines --immunology--IM; Child; Child, Preschool; Polysaccharides, Bacterial --immunology--IM; Splenectomy
CAS Registry No.: 0 (Antibodies, Bacterial); 0 (Bacterial Vaccines); 0 (Polysaccharides, Bacterial)
Record Date Created: 19831217

26/9/187 (Item 58 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

03737770 81142392 PMID: 7009617
Enzyme linked immunosorbent assays **for the estimation of immune responses to pneumococcal** polysaccharides .
Melville-Smith M; Sheffield F
Journal of biological standardization (ENGLAND) 1980, 8 (4) p317-22, ISSN 0092-1157 Journal Code: HJD
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
Subfile: INDEX MEDICUS
Tags: Human
Descriptors: Bacterial Vaccines--immunology--IM; *Enzyme-Linked Immunosorbent Assay; *Immunoenzyme Techniques; *Polysaccharides, Bacterial --immunology--IM; * **Streptococcus pneumoniae** ; Antibodies, Bacterial --analysis--AN; Serotyping
CAS Registry No.: 0 (Antibodies, Bacterial); 0 (Bacterial Vaccines); 0 (Polysaccharides, Bacterial)
Record Date Created: 19810528

26/9/188 (Item 59 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

03736390 81117790 PMID: 7007449
Comparison of ELISA and RIA for measurement **of pneumococcal antibodies before and after vaccination with 14-valent pneumococcal capsular** polysaccharide **vaccine.**
Koskela M; Leinonen M
Journal of clinical pathology (ENGLAND) Jan 1981, 34 (1) p93-8, ISSN 0021-9746 Journal Code: HT3
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
Subfile: AIM; INDEX MEDICUS
Antibody responses to the 14-valent pneumococcal capsular polysaccharide vaccine in children under school age were measured by enzyme-linked immunosorbent assay (ELISA) and radioimmunoassay (RIA). Specific IgG and IgM antibodies were usually detectable by ELISA in the prevaccination sera, and one or both of them increased as a response to the vaccination. Specific IGA antibodies were detected by ELISA in a part of the post-vaccination sera only. The frequency of the IgA responses increased with the age of the children. The correlation of the ELISA results with RIA was good (r from 0.652 to 0.812) except for type 6A (r = 0.471).
Tags: Comparative Study; Human; Support, Non-U.S. Gov't
Descriptors: Antibodies, Bacterial--biosynthesis--BI; *Enzyme-Linked Immunosorbent Assay; *Immunoenzyme Techniques; *Radioimmunoassay; * **Streptococcus pneumoniae** --immunology--IM; *Vaccination; Bacterial Vaccines--immunology--IM; Child; Child, Preschool; IgA--biosynthesis--BI; IgG--biosynthesis--BI; IgM--biosynthesis--BI; Infant; Polysaccharides, Bacterial--immunology--IM; Time Factors

CAS Registry No.: 0 (Antibodies, Bacterial); 0 (Bacterial Vaccines); 0 (IgA); 0 (IgG); 0 (IgM); 0 (Polysaccharides, Bacterial)
Record Date Created: 19810424

26/9/189 (Item 60 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

03732313 81049591 PMID: 7001027
Enzyme immunoassay **of the capsular** polysaccharide **of Streptococcus pneumoniae type III in cerebrospinal fluid in experimental meningitis.**
Nolan CM; Ulmer WC
Journal of medical microbiology (ENGLAND) Nov 1980, 13 (4) p551-60, ISSN 0022-2615 Journal Code: J2N
Contract/Grant No.: SO7RR05350, RR, NCRR
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
Subfile: INDEX MEDICUS
An enzyme immunoassay (EIA) for the capsular polysaccharide of Streptococcus pneumoniae type III was developed and applied to the measurement of this antigen in cerebrospinal fluid (CSF) in an experimental model of pneumococcal meningitis. EIA was performed by a single-antibody sandwich technique in which the globulin fraction of pneumococcal type-specific antiserum (antiserum-globulin) was used to coat the solid phase before antigen attachment and to conjugate with the labelling enzyme, horseradish peroxidase. Under optimum assay conditions EIA detected purified pneumococcal type-III capsular polysaccharide in concentrations as low as 0.15 ng/ml in aqueous buffer. Assayed by EIA, the mean concentration of type-III capsular polysaccharide in CSF of rabbits with pneumococcal meningitis increased exponentially from 24 h to 96nh of infection (range 13.9 ng/ml--62 500 ng/ml). Effective antimicrobial therapy of rabbits with meningitis was associated with a rapid decrease in the CSF concentration of the capsular antigen, although it was still detected in concentration in the range 1--10 ng/ml in 100% of animals treated for 4 days. Thus EIA provides a quantitative and extremely sensitive method of measuring type-III pneumococcal capsular polysaccharide in CSF.
Tags: Animal; Support, U.S. Gov't, P.H.S.
Descriptors: Meningitis, Pneumococcal--cerebrospinal fluid--CF; *Polysaccharides, Bacterial--cerebrospinal fluid--CF; * **Streptococcus pneumoniae** --immunology--IM; Immunoenzyme Techniques; Meningitis, Pneumococcal--drug therapy--DT; Meningitis, Pneumococcal--immunology--IM; Penicillin G--therapeutic use--TU; Rabbits
CAS Registry No.: 0 (Polysaccharides, Bacterial); 61-33-6 (Penicillin G)
Record Date Created: 19810129

26/9/190 (Item 61 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

03701863 83082178 PMID: 6897398
The effect of the lymphatic pump on the immune response: I. Preliminary studies on the antibody response to pneumococcal polysaccharide assayed **by bacterial agglutination and passive hemagglutination.**
Measel JW
Journal of the American Osteopathic Association (UNITED STATES) Sep 1982, 82 (1) p28-31, ISSN 0098-6151 Journal Code: G90
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
Subfile: INDEX MEDICUS
Tags: Human; Male; Support, Non-U.S. Gov't
Descriptors: Antibody Formation; *Lymphatic System--physiology--PH; *Polysaccharides, Bacterial--immunology--IM; * **Streptococcus pneumoniae** --immunology--IM; Agglutination Tests; Antibodies, Bacterial--analysis--AN; Hemagglutination Tests; Osteopathic Medicine

CAS Registry No.: 0 (Antibodies, Bacterial); 0 (Polysaccharides, Bacterial)
Record Date Created: 19830214

26/9/191 (Item 62 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

03569291 80203474 PMID: 7380537
Immunoglobulin G and M antibodies to pneumococcal polysaccharides detected **by enzyme-linked immunosorbent** assay .
Barrett DJ; Ammann AJ; Stenmark S; Wara DW
Infection and immunity (UNITED STATES) Feb 1980, 27 (2) p411-7, ISSN 0019-9567 Journal Code: GO7
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
Subfile: INDEX MEDICUS
An enzyme-linked immunosorbent assay has been developed to detect serum immunoglobulin G and M antibodies against pneumococcal polysaccharide antigens. Parameters affecting the specificity and sensitivity of the assay are described. A vigorous antibody response involving both the immunoglobulin G and M classes was demonstrated after pneumococcal polysaccharide immunization in normal adults. Studies with this enzyme-linked immunosorbent assay technique will allow further understanding of the biology of the primary and secondary immune response to Streptococcus pneumoniae in normals as well as in those persons most susceptible to infection with that organism.
Tags: Human; Support, U.S. Gov't, P.H.S.
Descriptors: Antibodies, Bacterial--analysis--AN; *Polysaccharides, Bacterial--immunology--IM; * **Streptococcus pneumoniae** --immunology--IM; Adult; Antibodies, Bacterial--biosynthesis--BI; Bacterial Vaccines --immunology--IM; Enzyme-Linked Immunosorbent Assay; IgG--analysis--AN; IgM --analysis--AN; Kinetics; Mercaptoethanol--pharmacology--PD; Vaccination
CAS Registry No.: 0 (Antibodies, Bacterial); 0 (Bacterial Vaccines); 0 (IgG); 0 (IgM); 0 (Polysaccharides, Bacterial); 60-24-2 (Mercaptoethanol)
Record Date Created: 19800815

26/9/192 (Item 63 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

03550136 80137920 PMID: 7358844
Enzyme-linked immunosorbent assay **for** detection **of antibodies against Streptococcus pneumoniae capsular** polysaccharides .
Russell H; Edwards LR; Wortham EW; Facklam RR
Journal of clinical microbiology (UNITED STATES) Feb 1980, 11 (2) p198-9, ISSN 0095-1137 Journal Code: HSH
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
Subfile: INDEX MEDICUS
The development of an assay to measure the human immune response to pneumococcal capsular polysaccharides is described.
Tags: Human
Descriptors: Antibodies, Bacterial--analysis--AN; *Bacterial Vaccines --immunology--IM; *Polysaccharides, Bacterial--immunology--IM; * **Streptococcus pneumoniae** --immunology--IM; Adult; Enzyme-Linked Immunosorbent Assay; Vaccination
CAS Registry No.: 0 (Antibodies, Bacterial); 0 (Bacterial Vaccines); 0 (Polysaccharides, Bacterial)
Record Date Created: 19800523

26/9/193 (Item 64 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

03550129 80137904 PMID: 7358837

Detection **of Pneumococcal Capsular** polysaccharide **antigens by latex agglutination, counterimmunoelectrophoresis, and radioimmunoassay in middle ear exudates in acute otitis media.**

Leinonen MK

Journal of clinical microbiology (UNITED STATES) Feb 1980, 11 (2) p135-40, ISSN 0095-1137 Journal Code: HSH

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: INDEX MEDICUS

The presence of pneumococcal antigen in middle ear exudates during acute otitis media was studied by latex agglutination and counterimmunoelectrophoresis. The positive antigen findings were confirmed by radioimmunoassay. Latex agglutination gave a positive result in 63% and counterimmunoelectrophoresis in 76% of samples that grew Streptococcus pneumoniae. The methods were complementary; the antigen was detected by one or both of the methods in 88% of these samples. Pneumococcal antigen was further detected in 15% of samples that grew other otitis pathogens and in 33% of samples in which no pathogenic bacteria were recovered by culture. The distribution of pneumococcal serotypes found by immunochemical methods only corresponded to that found by culture.

Tags: Human

Descriptors: Otitis Media--immunology--IM; *Polysaccharides, Bacterial --analysis--AN; * **Streptococcus pneumoniae** --immunology--IM; Child; Child, Preschool; Counterimmunoelectrophoresis; Infant; Latex Fixation Tests; Polysaccharides, Bacterial--classification--CL; Radioimmunoassay; Serotypin g; **Streptococcus pneumoniae** --classification--CL

CAS Registry No.: 0 (Polysaccharides, Bacterial)

Record Date Created: 19800523

26/9/194 (Item 65 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

03446070 76121535 PMID: 2641

Detection **of pneumococcal** polysaccharide **in the sputum of patients with pneumococcal pneumonia by counterimmunoelectrophoresis.**

Perlino CA; Shulman JA

Journal of laboratory and clinical medicine (UNITED STATES) Mar 1976, 87 (3) p496-502, ISSN 0022-2143 Journal Code: IVR

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: AIM; INDEX MEDICUS

Each of 41 patients with bacterial pneumonia was placed into 1 of 4 categories based on the relative clinical certainty of the diagnosis of pneumococcal pneumonia. The frequency of pneumococcal polysaccharide in the sputum by counterimmunoelectrophoresis (CIE) was then noted for each diagnostic category of patients. Detection of pneumococcal polysaccharide in sputum correlated with the diagnostic certainty of pneumococcal pneumonia, while results of culture of sputum were less indicative of pneumococcal infection. Saliva of 83 normal individuals failed to give positive tests for pneumococcal polysaccharide despite the presence of alpha-hemolytic streptococci on culture. Furthermore, the mere presence of pneumococci in cultures did not predict a positive test for polysaccharide by CIE nor did the absence of pneumococci mean that polysaccharide would not be detected. This study suggests that detection of pneumococcal polysaccharide appears more rapid, more sensitive, and more specific than sputum cultures in diagnosing pneumococcal infection of the lung.

Tags: Human

Descriptors: *Counterimmunoelectrophoresis; *Immunoelectrophoresis; *Pneumonia, Pneumococcal--diagnosis--DI; *Polysaccharides, Bacterial --analysis--AN; *Sputum--immunology--IM; Pneumonia, Pneumococcal--etiology --ET; Sputum--microbiology--MI; **Streptococcus pneumoniae** --immunology--IM

CAS Registry No.: 0 (Polysaccharides, Bacterial)

Record Date Created: 19760427

26/9/195 (Item 66 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

03420175 79087878 PMID: 83302
Characterization of the cross-reaction between type 19F(19) and 19A(57) pneumococcal capsular polysaccharides : **compositional analysis and immunological relation** determined **with rabbit typing antisera.**
Krishnamurthy T; Lee CJ; Henrichsen J; Carlo DJ; Stoudt TM; Robbins JB
Infection and immunity (UNITED STATES) Dec 1978, 22 (3) p727-35, ISSN 0019-9567 Journal Code: GO7
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
Subfile: INDEX MEDICUS
The immunological relation, physicochemical characteristics, and chemical composition of type 19F(19) and 19A(57) within the cross-reactive group 19 pneumococcal capsular polysaccharides were studied. By using rabbit hyperimmune diagnostic antisera in agglutination, immunodiffusion, quantitative precipitation, and absorption assays, extensive cross-antigenicity and cross-immunogenicity were demonstrable between the disease-associated types 19F(19) and 19A(57). Types 19B(58) and 19C(59), rarely associated with human disease, were extensively cross-reactive with each other but reacted weakly with types 19F(19) and 19A(57). Both types 19F(19) and 19A(57) polysaccharides contained trace amounts of protein and nucleic acid and had comparable molecular sizes as determined by gel filtration. Compositional analysis showed type 19F(19) to contain rhamnose, glucose, N-acetylmannosamine, and a phosphate ester. Type 19A(57) contained these four moieties, and in addition, contained fucose, galactose, and N-acetylglucosamine. Plans for using this information to evaluate current and proposed formulation of multivalent pneumococcal polysaccharide vaccines are discussed.
Tags: Comparative Study
Descriptors: Antigens, Bacterial; *Polysaccharides, Bacterial--immunology --IM; * **Streptococcus pneumoniae** --immunology--IM; Cross Reactions; Epitopes; Hexosamines--analysis--AN; Monosaccharides--analysis--AN; Polysaccharides, Bacterial--analysis--AN; **Streptococcus pneumoniae** --analysis--AN
CAS Registry No.: 0 (Antigens, Bacterial); 0 (Epitopes); 0 (Hexosamines); 0 (Monosaccharides); 0 (Polysaccharides, Bacterial)
Record Date Created: 19790328

26/9/196 (Item 67 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

03377821 75148433 PMID: 236095
The response of mice to type III pneumococcal polysaccharide : **failure to** detect **thymus-derived suppressor cells.**
Warr GW; Ghaffar A; James K
Cellular immunology (UNITED STATES) Jun 1975, 17 (2) p366-73, ISSN 0008-8749 Journal Code: CQ9
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
Subfile: INDEX MEDICUS
Tags: Animal
Descriptors: Antibody Formation; *Polysaccharides, Bacterial; * **Streptococcus pneumoniae** --immunology--IM; *T-Lymphocytes--immunology--IM ; Antibody-Producing Cells; Antilymphocyte Serum; Hemolytic Plaque Technique; Immunosuppression; Lymphocytes--transplantation--TR; Mice; Mice, Inbred BALB C; Mice, Inbred CBA; Mice, Nude; Organ Weight; Spleen --immunology--IM; Thymectomy; Thymus Gland--immunology--IM; Transplantation , Homologous
CAS Registry No.: 0 (Antilymphocyte Serum); 0 (Polysaccharides,

Bacterial)
Record Date Created: 19750724

26/9/197 (Item 68 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

02772012 79027556 PMID: 29910
Immunoelectrophoresis for detection **of** polysaccharides **in immune complexes.**
Coonrod JD; Leach RP
Journal of clinical microbiology (UNITED STATES) Aug 1978, 8 (2) p257-9, ISSN 0095-1137 Journal Code: HSH
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
Subfile: INDEX MEDICUS
A procedure for detecting pneumococcal capsular polysaccharides in immune complexes is described. Separation of antigen from immune complexes is achieved by electrophoresis at 56 degrees C.
Tags: Animal; Comparative Study; Human; Support, U.S. Gov't, Non-P.H.S.
Descriptors: Antigen-Antibody Complex; *Immunoelectrophoresis; *Pneumonia, Pneumococcal--immunology--IM; *Polysaccharides, Bacterial --analysis--AN; * **Streptococcus pneumoniae** --immunology--IM; Counterimmunoelectrophoresis; Immunoelectrophoresis--methods--MT; Rabbits; Temperature
CAS Registry No.: 0 (Antigen-Antibody Complex); 0 (Polysaccharides, Bacterial)
Record Date Created: 19781220

26/9/198 (Item 69 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

02716585 80116058 PMID: 43335
Enzyme-linked immunosorbent assay **for** measurement **of antibodies against pneumococcal** polysaccharide **antigens: comparison with radioimmunoassay.**
Callahan LT; Woodhour AF; Meeker JB; Hilleman MR
Journal of clinical microbiology (UNITED STATES) Oct 1979, 10 (4) p459-63, ISSN 0095-1137 Journal Code: HSH
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
Subfile: INDEX MEDICUS
An enzyme-linked immunosorbent assay (ELISA) for measuring antibodies against each of 14 polysaccharides in contemporary pneumococcal vaccine is described, and the findings of tests of paired sera from vaccinated human subjects are compared with those obtained by radioimmunoassay. The findings were in very poor agreement, and this appears to be due to the lesser ability of the ELISA procedure to measure antibody of low avidity. The ELISA procedure described here is not considered to be a satisfactory substitute for radioimmunoassay for measuring antibody responses to pneumococcal vaccine.
Tags: Comparative Study; Human
Descriptors: Antibodies, Bacterial--analysis--AN; *Enzyme-Linked Immunosorbent Assay; *Immunoenzyme Techniques; *Polysaccharides, Bacterial --immunology--IM; *Radioimmunoassay; * **Streptococcus pneumoniae** --immunology--IM; Vaccination
CAS Registry No.: 0 (Antibodies, Bacterial); 0 (Polysaccharides, Bacterial)
Record Date Created: 19800423

26/9/199 (Item 70 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

02709050 79006391 PMID: 29068

Selective sensitivity to hydrocortisone of regulatory functions that determine the magnitude of the antibody response to type III pneumococcal polysaccharide .

Markham RB; Stashak PW; Prescott B; Amsbaugh DF; Baker PJ

Journal of immunology (UNITED STATES) Sep 1978, 121 (3) p829-34, ISSN 0022-1767 Journal Code: IFB

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: AIM; INDEX MEDICUS

Previous studies on the basis for the immunosuppressive potential of adrenal corticosteroids have stressed that the effects of these agents on immune functions depend on the animal species being considered, as well as the subpopulations of lymphocytes involved in the expression of immune functions examined. In the present work, we have evaluated the effect of a single dose of hydrocortisone on three different immunoregulatory functions that can influence the magnitude of an antibody response to Type III pneumococcal polysaccharide (SSS-III) in mice; these functions include suppressor, amplifier, and helper activity that are dependent upon the presence of distinct subpopulations of thymus-derived (T) cells. The results obtained show that a single injection of a relatively large dose of hydrocortisone, when given at the time of priming with carrier, eliminated all evidence of carrier-specific helper T cell activity; hydrocortisone was also found to eliminate a significant amount of helper T cell activity when given after such activity had been generated. But, under the same experimental conditions, suppressor and amplifier T cell activities were unaffected, even in this steroid-sensitive species. Such selective sensitivity may account for some of the immunosuppressive potency of steroids.

Tags: Animal; Female

Descriptors: Antibodies, Bacterial--biosynthesis--BI; *Hydrocortisone --pharmacology--PD; *Polysaccharides, Bacterial--pharmacology--PD; * **Streptococcus pneumoniae** ; Dose-Response Relationship, Immunologic; Mice; Mice, Inbred BALB C; T-Lymphocytes--immunology--IM

CAS Registry No.: 0 (Antibodies, Bacterial); 0 (Polysaccharides, Bacterial); 50-23-7 (Hydrocortisone)

Record Date Created: 19781118

26/9/200 (Item 71 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

02707346 78171589 PMID: 25899

Enzymatic measurement of glucose and galactose content pneumococcal capsular polysaccharides .

Lee C; Robbins JB

Journal of biological standardization (ENGLAND) 1978, 6 (2) p97-95, ISSN 0092-1157 Journal Code: HJD

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: INDEX MEDICUS

Descriptors: Galactose--analysis--AN; *Glucose--analysis--AN; *Polysaccharides, Bacterial--analysis--AN; * **Streptococcus pneumoniae** --analysis--AN; Bacterial Vaccines--standards--ST; Cell Wall--analysis--AN; Galactose Oxidase--metabolism--ME; Glucose Oxidase--metabolism--ME; Hydrolysis; Polysaccharides, Bacterial--immunology--IM; **Streptococcus pneumoniae** --immunology--IM

CAS Registry No.: 0 (Bacterial Vaccines); 0 (Polysaccharides, Bacterial); 26566-61-0 (Galactose); 50-99-7 (Glucose)

Enzyme No.: EC 1.1.3.4 (Glucose Oxidase); EC 1.1.3.9 (Galactose Oxidase)

Record Date Created: 19780724

26/9/201 (Item 72 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

02695521 76221953 PMID: 6946
Letter: Diagnostic value of the detection **of specific** polysaccharides **by counterelectrophoresis in meningitis in children. 50 cases]**
Interet diagnostique de la recherche des **polysaccharides** specifiques par contre-immunoelectrophorese dans les meningites de l'enfant. 50 cas
Geslin P; Legrand P; Squinazi F; Brioude R; Leraillez J; Lejeune JA
La Nouvelle presse medicale (FRANCE) May 29 1976, 5 (22) p1431-2, ISSN 0301-1518 Journal Code: O5Q
Languages: FRENCH
Document type: Journal Article
Record type: Completed
Subfile: INDEX MEDICUS
Tags: Human
Descriptors: Counterimmunoelectrophoresis; *Haemophilus influenzae --immunology--IM; *Immunoelectrophoresis; *Meningitis--diagnosis--DI; *Neisseria meningitidis--immunology--IM; *Polysaccharides, Bacterial --analysis--AN; * **Streptococcus pneumoniae** --immunology--IM; Child
CAS Registry No.: 0 (Polysaccharides, Bacterial)
Record Date Created: 19760823

26/9/202 (Item 73 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

02091605 72268672 PMID: 4403476
Genetic control of the antibody response to type 3 pneumococcal polysaccharide **in mice. I. Evidence that an X-linked gene plays a decisive role in** determining **responsiveness.**
Amsbaugh DF; Hansen CT; Prescott B; Stashak PW; Barthold DR; Baker PJ
Journal of experimental medicine (UNITED STATES) Oct 1 1972, 136 (4) p931-49, ISSN 0022-1007 Journal Code: I2V
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
Subfile: AIM; INDEX MEDICUS
Tags: Animal; Female; Male
Descriptors: *Antibody Formation; *Antibody-Producing Cells; *Immunogenetics; *Polysaccharides, Bacterial; *Sex Chromosomes; Antibodies --analysis--AN; Antigens, Bacterial; Crosses, Genetic; Erythrocytes --immunology--IM; Escherichia coli--immunology--IM; Hemolytic Plaque Technique; IgM--analysis--AN; Mice; Mice, Inbred Strains; Sheep--immunology --IM; **Streptococcus pneumoniae** --immunology--IM
CAS Registry No.: 0 (Antibodies); 0 (Antigens, Bacterial); 0 (IgM); 0 (Polysaccharides, Bacterial)
Record Date Created: 19721025

26/9/203 (Item 74 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

02082759 70067087 PMID: 4391281
Quantitative **and qualitative studies on the primary antibody response to pneumococcal** polysaccharides **at ehe cellular level.**
Baker PH; Stashak PW
Journal of immunology (UNITED STATES) Dec 1969, 103 (6) p1342-8, ISSN 0022-1767 Journal Code: IFB
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
Subfile: AIM; INDEX MEDICUS
Tags: Animal
Descriptors: Antibody Formation--drug effects--DE; *Erythrocytes --immunology--IM; *Polysaccharides, Bacterial--pharmacology--PD; * **Streptococcus pneumoniae** ; Binding Sites; Cross Reactions; Hemolytic Plaque Technique; IgM; Macroglobulins; Mice; Sheep; Spleen--immunology--IM

CAS Registry No.: 0 (IgM); 0 (Macroglobulins); 0 (Polysaccharides, Bacterial)
Record Date Created: 19700205

26/9/204 (Item 75 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

02081803 69210621 PMID: 4389161
Studies on immunological paralysis. II. The detection **and significance of antibod-forming cells in the spleen during immunological paralysis with type 3 pneumococcal** polysaccharide .
Howard JG; Elson J; Christie GH; Kinsky RG
Clinical and experimental immunology (ENGLAND) Jan 1969, 4 (1) p41-53, ISSN 0009-9104 Journal Code: DD7
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
Subfile: INDEX MEDICUS
Tags: Animal
Descriptors: Antibody Formation; *Immune Tolerance; *Polysaccharides, Bacterial; *Spleen--immunology--IM; * **Streptococcus pneumoniae** --immunology --IM; Antigen-Antibody Reactions; Erythrocytes--immunology--IM; Hemagglutination Tests; Mice
CAS Registry No.: 0 (Polysaccharides, Bacterial)
Record Date Created: 19690803

26/9/205 (Item 76 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

02081689 69166453 PMID: 4388600
Use of erythrocytes sensitized with purified pneumococcal polysaccharides **for the** assay **of antibody and antibody-producing cells.**
Baker PJ; Stashak PW; Prescott B
Applied microbiology (UNITED STATES) Mar 1969, 17 (3) p422-6, ISSN 0003-6919 Journal Code: 6K0
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
Subfile: INDEX MEDICUS
Tags: Animal; Female
Descriptors: Antibody Formation; *Erythrocytes--immunology--IM; *Polysaccharides, Bacterial; * **Streptococcus pneumoniae** --immunology--IM; Antibodies--analysis--AN; Hemagglutination Tests; Hemolysis; Mice; Spleen --immunology--IM
CAS Registry No.: 0 (Antibodies); 0 (Polysaccharides, Bacterial)
Record Date Created: 19690605

26/9/206 (Item 77 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

02081526 69188149 PMID: 4388904
The proportion of two b locus allotypic determinants **in rabbit antisera raised against pneumococcal** polysaccharide **SSS 3 antigen.**
Catty D; Humphrey JH; Gell PG
Immunology (ENGLAND) Mar 1969, 16 (3) p409-22, ISSN 0019-2805 Journal Code: GH7
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
Subfile: INDEX MEDICUS
Tags: Animal
Descriptors: Haptens--analysis--AN; *Immune Sera--analysis--AN; *Polysaccharides, Bacterial; * **Streptococcus pneumoniae** --immunology--IM; Absorption; Alleles; Antibody Formation; Heterozygote; IgG--analysis--AN;

Immunization; Immunodiffusion; Rabbits
CAS Registry No.: 0 (Haptens); 0 (IgG); 0 (Immune Sera); 0 (Polysaccharides, Bacterial)
Record Date Created: 19690703

26/9/207 (Item 78 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

02080520 69054307 PMID: 4387095
Quantitative **studies of the specificity of anti-pneumococcal** polysaccharide **antibodies, types 3 and 8. 3. Binding of a labeled oligosaccharide derived from S8 by anti-S8 antibodies.**
Pappenheimer AM; Reed WP; Brown R
Journal of immunology (UNITED STATES) Jun 1968, 100 (6) p1237-44, ISSN 0022-1767 Journal Code: IFB
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
Subfile: AIM; INDEX MEDICUS
Tags: Animal
Descriptors: Antibodies--analysis--AN; *Immune Sera; *Oligosaccharides --analysis--AN; *Polysaccharides--analysis--AN; * **Streptococcus pneumoniae** --immunology--IM; Chromatography, Gel; Dialysis; Horses; Immunochemistry; Precipitation; Rabbits; Species Specificity; Tritium
CAS Registry No.: 0 (Antibodies); 0 (Immune Sera); 0 (Oligosaccharides); 0 (Polysaccharides); 10028-17-8 (Tritium)
Record Date Created: 19690125

26/9/208 (Item 79 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

02078546 68046072 PMID: 4383411
Cross-reactions of the group-specific polysaccharides **of streptococcal groups B and G in anti-pneumococcal sera with especial reference to type 23 and its** determinants .
Heidelberger M; Davie JM; Krause RM
Journal of immunology (UNITED STATES) Oct 1967, 99 (4) p794-6, ISSN 0022-1767 Journal Code: IFB
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
Subfile: AIM; INDEX MEDICUS
Descriptors: Polysaccharides, Bacterial; *Streptococcus--immunology--IM; * **Streptococcus pneumoniae** --immunology--IM; Antigen-Antibody Reactions; Antigens; Chromatography; Polysaccharides, Bacterial--analysis--AN; Precipitin Tests; Rhamnose--analysis--AN
CAS Registry No.: 0 (Antigens); 0 (Polysaccharides, Bacterial); 10485-94-6 (Rhamnose)
Record Date Created: 19680114

26/9/209 (Item 80 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

02077188 67083699 PMID: 4381031
Quantitative **studies of the specificity of anti-pneumococcal** polysaccharide **antibodies, types 3 and 8. II. Inhibition of precipitin reactions with oligosaccharides isolated from hydrolysates of S3 and S8.**
Campbell JH; Pappenheimer AM
Immunochemistry (ENGLAND) May 1966, 3 (3) p213-22, ISSN 0019-2791 Journal Code: GH2
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
Subfile: INDEX MEDICUS

Tags: Animal
Descriptors: Antigen-Antibody Reactions; *Oligosaccharides--analysis--AN; *Polysaccharides, Bacterial--analysis--AN; *Precipitins; * **Streptococcus pneumoniae** --immunology--IM; Chemistry; Horses; Rabbits
CAS Registry No.: 0 (Oligosaccharides); 0 (Polysaccharides, Bacterial); 0 (Precipitins)
Record Date Created: 19670322

26/9/210 (Item 81 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

02077187 67083698 PMID: 4381030
Quantitative **studies of the specificity of anti-pneumococcal** polysaccharide **antibodies, types 3 and 8. I. Isolation of oligosaccharides from acid and from enzymatic hydrolysates of S3 and S8.**
Campbell JH; Pappenheimer AM
Immunochemistry (ENGLAND) May 1966, 3 (3) p195-212, ISSN 0019-2791 Journal Code: GH2
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
Subfile: INDEX MEDICUS
Descriptors: Antibodies; *Oligosaccharides--analysis--AN; *Polysaccharides, Bacterial--analysis--AN; * **Streptococcus pneumoniae** --immunology--IM; Chemistry; Chromatography, Gel; Disaccharides--analysis--AN; Glucose--analysis--AN; Glucuronates--analysis--AN; Glycoside Hydrolases; Immune Sera; Models, Theoretical
CAS Registry No.: 0 (Antibodies); 0 (Disaccharides); 0 (Glucuronates); 0 (Immune Sera); 0 (Oligosaccharides); 0 (Polysaccharides, Bacterial); 50-99-7 (Glucose)
Enzyme No.: EC 3.2.1. (Glycoside Hydrolases)
Record Date Created: 19670322

26/9/211 (Item 82 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

01573334 71166460 PMID: 4396594
Chromatographic determination **of the D- and L-amino acid residues in pneumococcal C-** polysaccharide .
Manning JM
Journal of biological chemistry (UNITED STATES) May 10 1971, 246 (9) p2926-9, ISSN 0021-9258 Journal Code: HIV
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
Subfile: INDEX MEDICUS
Descriptors: *Amino Acids--analysis--AN; *Polysaccharides, Bacterial--analysis--AN; Alanine--analysis--AN; Anhydrides; Autoanalysis; Chromatography, Ion Exchange; Dipeptides; Glutamates--analysis--AN; Hydrochloric Acid; Hydrolysis; Lysine--analysis--AN; Stereoisomerism; **Streptococcus pneumoniae** ; Tritium
CAS Registry No.: 0 (Amino Acids); 0 (Anhydrides); 0 (Dipeptides); 0 (Glutamates); 0 (Polysaccharides, Bacterial); 10028-17-8 (Tritium); 56-87-1 (Lysine); 6898-94-8 (Alanine); 7647-01-0 (Hydrochloric Acid)
Record Date Created: 19710609

26/9/212 (Item 83 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

01540987 74144582 PMID: 4150822
The assay **of pneumococcal capsular** polysaccharide **by immunodiffusion.**
Porschen RK; Kennedy ER
Journal of immunological methods (NETHERLANDS) Jan 1974, 3 (1) p107-8, ISSN 0022-1759 Journal Code: IFE

Languages: ENGLISH
Document type: Journal Article
Record type: Completed
Subfile: INDEX MEDICUS
Descriptors: *Polysaccharides, Bacterial--analysis--AN; Immunodiffusion; Methods; Precipitin Tests; **Streptococcus pneumoniae** --immunology--IM
CAS Registry No.: 0 (Polysaccharides, Bacterial)
Record Date Created: 19740614

26/9/213 (Item 84 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

01539009 73244282 PMID: 4146959
Quantitative **studies of the specificity of anti-pneumococcal** polysaccharide **antibodies, types 3 and 8. V. Cross-reacting antibodies in rabbit antisera.**
Speyer JL; Emans JB; Kimball JW; Pappenheimer AM
Immunochemistry (ENGLAND) Apr 1973, 10 (4) p257-63, ISSN 0019-2791 Journal Code: GH2
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
Subfile: INDEX MEDICUS
Tags: Animal
Descriptors: Cross Reactions; *Polysaccharides, Bacterial; * **Streptococcus pneumoniae** --immunology--IM; Amino Acid Sequence; Antibodies, Bacterial; Antigen-Antibody Reactions; Binding Sites, Antibody; Carbon Isotopes; Chromatography, Gel; Dialysis; Disaccharides; Electrophoresis, Disc; Horses--immunology--IM; Immune Sera; Mathematics; Oligosaccharides; Osmolar Concentration; Precipitin Tests; Rabbits --immunology--IM; **Streptococcus pneumoniae** --metabolism--ME; Tritium; Uronic Acids; Vaccines
CAS Registry No.: 0 (Antibodies, Bacterial); 0 (Binding Sites, Antibody); 0 (Carbon Isotopes); 0 (Disaccharides); 0 (Immune Sera); 0 (Oligosaccharides); 0 (Polysaccharides, Bacterial); 0 (Uronic Acids); 0 (Vaccines); 10028-17-8 (Tritium)
Record Date Created: 19731101

26/9/214 (Item 85 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

01536645 73061090 PMID: 4404827
Determination **of antibody to pneumococcal** polysaccharides **with chromic chloride-treated human red blood cells and indirect hemagglutination.**
Ammann AJ; Pelger RJ
Applied microbiology (UNITED STATES) Nov 1972, 24 (5) p679-83, ISSN 0003-6919 Journal Code: 6K0
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
Subfile: INDEX MEDICUS
Tags: Human
Descriptors: Antibodies, Bacterial--analysis--AN; *Erythrocytes --immunology--IM; *Hemagglutination Tests; *Polysaccharides, Bacterial; * **Streptococcus pneumoniae** --immunology--IM; Adult; Antibody Formation; Blood Groups; Carbon Isotopes; Centrifugation, Density Gradient; Child; Child, Preschool; Chlorides; Chromium; Evaluation Studies; IgG--analysis --AN; IgM--analysis--AN; Immunization; Immunologic Techniques; Infant; Mercaptoethylamines--pharmacology--PD; Radioimmunoassay; Ultracentrifugation
CAS Registry No.: 0 (Antibodies, Bacterial); 0 (Blood Groups); 0 (Carbon Isotopes); 0 (Chlorides); 0 (IgG); 0 (IgM); 0 (Mercaptoethylamines); 0 (Polysaccharides, Bacterial); 7440-47-3 (Chromium)

Record Date Created: 19730215

Tags: Animal; Human
Descriptors: Antibodies, Bacterial--biosynthesis--BI; *Antigens, Bacterial--administration and dosage--AD; *Haemophilus influenzae --immunology--IM; * **Streptococcus pneumoniae** --immunology--IM; Adjuvants, Immunologic; Adult; Aluminum Hydroxide--immunology--IM; Antibodies, Bacterial--classification--CL; Cross Reactions; Escherichia coli --immunology--IM; Macaca mulatta; Polysaccharides, Bacterial--immunology --IM; Tetanus Toxoid--immunology--IM
CAS Registry No.: 0 (Adjuvants, Immunologic); 0 (Antibodies, Bacterial); 0 (Antigens, Bacterial); 0 (Polysaccharides, Bacterial); 0 (Tetanus Toxoid); 21645-51-2 (Aluminum Hydroxide)
Record Date Created: 19860528

26/9/159 (Item 30 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

06344989 88060527 PMID: 3680958
Highly sensitive biotin-avidin sandwich ELISA for the rapid detection **of pneumococcal capsular** polysaccharide **antigens.**
Da Costa Castro JM; Deschamps F; Benbachir M; Henrichsen J; Volle PJ; Guinet RM
Centre d'Immunochimie Microbienne, Institut Pasteur, Lyon, France.
Journal of immunological methods (NETHERLANDS) Nov 23 1987, 104 (1-2) p265-70, ISSN 0022-1759 Journal Code: IFE
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
Subfile: INDEX MEDICUS
The immunological detection of soluble pneumococcal polysaccharide antigens in pathological products is of importance in the direct diagnosis of meningitis or pulmonary infections. We have developed a double antibody sandwich ELISA method using a biotin-avidin system using antibodies constituted with a mixture of IgGs from pooled and/or monospecific antipneumococcal sera provided by the Danish Statens Seruminstitut. The sensitivity of this rapid ELISA method was optimized with purified capsular polysaccharides of the 24 main pneumococcal serotypes. With incubation steps of 30 min at 37 degrees C for the antigens and the conjugates, the detection limit was close to 1 ng/ml for 75% of the purified polysaccharides. A retrospective study of 46 CSF samples established the validity of the assay. This type of modified ELISA system represents a specific, sensitive and rapid procedure for the potential detection of capsular soluble antigens of all pneumococcal serotypes.
Descriptors: Antigens, Bacterial--immunology--IM; *Enzyme-Linked Immunosorbent Assay--methods--MT; *Polysaccharides, Bacterial--immunology --IM; * **Streptococcus pneumoniae** --immunology--IM; Avidin--diagnostic use --DU; Bacterial Vaccines--immunology--IM; Biotin--diagnostic use--DU; Dose-Response Relationship, Immunologic; Time Factors
CAS Registry No.: 0 (Antigens, Bacterial); 0 (Bacterial Vaccines); 0 (Polysaccharides, Bacterial); 1405-69-2 (Avidin); 58-85-5 (Biotin)
Record Date Created: 19880104

26/9/160 (Item 31 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

06344984 88060509 PMID: 3680953
ELISA determination **of IgG antibodies to pneumococcal capsular** polysaccharides **in a group of children.**
Windebank KP; Faux JA; Chapel HM
Department of Paediatrics, John Radcliffe Hospital, Oxford, U.K.
Journal of immunological methods (NETHERLANDS) Nov 23 1987, 104 (1-2) p143-8, ISSN 0022-1759 Journal Code: IFE
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
Subfile: INDEX MEDICUS

type 4 capsular polysaccharide . Detection **by double immunocytochemical staining of antibody-containing cells in situ and ELISA.**

van den Dobbelsteen GP; van Rooijen N; Sminia T; van Rees EP

Department of Cell Biology, Vrije Universiteit, Amsterdam, The Netherlands.

Journal of immunological methods (NETHERLANDS) Dec 15 1991, 145 (1-2) p93-103, ISSN 0022-1759 Journal Code: IFE

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: INDEX MEDICUS

Two different methods have been used to study immune responses in the rat to Streptococcus pneumoniae type 3 and type 4 capsular polysaccharides (PPS). First, for simultaneous detection of the specificity and isotype of anti-PPS antibody-containing cells (ACC) in cryostat sections of lymphoid tissue, a double immunocytochemical method was developed. This method is a combination of a three-step immunoperoxidase method to demonstrate specific anti-PPS ACC as bright red cells and a two-step immunophosphatase method to detect the isotype of ACC as blue cells. Double positive cells appear violet. Using this staining procedure, the detection of antigen was also possible. Second, to study the anti-PPS response in serum, an ELISA procedure was modified. In this ELISA, polyvinylchloride microtiter plates are coated directly with type-specific pneumococcal polysaccharide. After intraperitoneal (i.p.) immunization of rats with PPS-3 or PPS-4, both antigen (PPS) and specific ACC could be detected. Specific ACC were found in the spleen and mesenteric lymph nodes. In the spleen, the specific ACC were found in the red pulp, marginal zone, outer PALS, and follicles. Most of these ACC were IgM-positive and to a lesser extent IgG-positive and IgA-positive. However, specific ACC in mesenteric lymph nodes were predominantly of the IgA isotype, with only few IgM or IgG positive cells. The anti-PPS response in serum, as measured by the ELISA, consisted mainly of IgM antibodies with small amounts of IgG and IgA. Both methods were found to be valuable in studies of immune responses against bacterial polysaccharides.

Tags: Animal; Male; Support, Non-U.S. Gov't

Descriptors: Antibodies, Bacterial--analysis--AN; *Antigens, Bacterial --immunology--IM; *Immunoenzyme Techniques; *Polysaccharides, Bacterial --immunology--IM; * **Streptococcus pneumoniae** --immunology--IM; Antibodies, Bacterial--biosynthesis--BI; Immunoglobulin Isotypes--analysis--AN; Lymph Nodes--immunology--IM; Rats; Rats, Inbred Strains; Spleen--cytology--CY; Spleen--immunology--IM

CAS Registry No.: 0 (Antibodies, Bacterial); 0 (Antigens, Bacterial); 0 (Immunoglobulin Isotypes); 0 (Polysaccharides, Bacterial)

Record Date Created: 19920214

26/9/151 (Item 22 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

07325718 91238640 PMID: 2093836

Pneumococcal C and type polysaccharide detection **in the concentrated urine of patients with bacteremia.**

Bromberg K; Tannis G; Rodgers A

Department of Pediatrics, State University of New York, Brooklyn/Kings County Hospital Center, NY 11203.

Medical microbiology and immunology (GERMANY) 1990, 179 (6) p335-8, ISSN 0300-8584 Journal Code: M58

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: INDEX MEDICUS

The C polysaccharide of Streptococcus pneumoniae was detected in the concentrated urine of 23 of 33 patients with pneumococcal bacteremia using latex agglutination. Type-specific polysaccharides were detected in the urine of 17 of these 33 patients including 4 patients lacking C polysaccharide in their urine. These 4 with the 23 detected above gave a total sensitivity of 82% (27/33). The concentrated urine from an additional

11 patients with other bacteremias were tested by C polysaccharide and type-specific reagents and were negative. C polysaccharide detection in the concentrated urine of patients may be helpful in the diagnosis of pneumococcal infections.

Tags: Human

Descriptors: Pneumococcal Infections--diagnosis--DI; *Polysaccharides, Bacterial--urine--UR; *Septicemia--diagnosis--DI; * **Streptococcus pneumoniae** --isolation and purification--IP; Adolescence; Adult; Aged; Aged, 80 and over; Child; Child, Preschool; Infant; Infant, Newborn; Middle Age; Pneumococcal Infections--complications--CO; Septicemia--complications --CO

CAS Registry No.: 0 (Polysaccharides, Bacterial); 0 (polysaccharide C-substance (Streptococcus))

Record Date Created: 19910626

26/9/152 (Item 23 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

07286428 91062911 PMID: 2247891

Quantitation **of IgG subclass antibodies to pneumococcal capsular** polysaccharides **by ELISA, using Pneumovax-specific antibodies as a reference.**

Kojima K; Ishizaka A; Oshika E; Taguchi Y; Tomizawa K; Nakanishi M; Sakiyama Y; Matsumoto S

Department of Pediatrics, Hokkaido University School of Medicine, Sapporo, Japan.

Tohoku journal of experimental medicine (JAPAN) Jul 1990, 161 (3) p209-15, ISSN 0040-8727 Journal Code: VTF

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: INDEX MEDICUS

A quantitative enzyme-linked immunosorbent assay (ELISA) method has been developed to assay the levels of IgG subclasses to pneumococcal capsular polysaccharides (PCP) by using a reference standard. This standard solution containing specific antibodies to a polyvalent pneumococcal vaccine (Pneumovax) was purified from the serum of an immunized healthy adult by affinity chromatography. In order to determine the predominant response to Pneumovax in the four IgG subclasses, specific IgG subclasses in preimmune and postimmune sera from six healthy adults were assessed quantitatively by the ELISA. With regard to peak concentrations after immunization, there was a marked increase in the IgG2 subclass, compared with those of IgG1 and IgG3. Such a quantitative assay of Pneumovax-specific IgG subclass antibodies is useful for the direct evaluation of immune responses to immunization with a polyvalent pneumococcal vaccine, and at the same time, for estimating the IgG2 response to PCP antigens in individuals.

Tags: Animal; Human; Support, Non-U.S. Gov't

Descriptors: Antibodies, Bacterial--analysis--AN; *IgG--analysis--AN; *Polysaccharides--immunology--IM; * **Streptococcus pneumoniae** --immunology --IM; Chromatography, Affinity; Enzyme-Linked Immunosorbent Assay; Mice; Reference Standards

CAS Registry No.: 0 (Antibodies, Bacterial); 0 (IgG); 0 (Polysaccharides)

Record Date Created: 19910104

26/9/153 (Item 24 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

07176981 92268638 PMID: 1588146

Evaluation **of bacterial** polysaccharide **immune globulin for the treatment or prevention of Haemophilus influenzae type b and pneumococcal disease.**

Siber GR; Thompson C; Reid GR; Almeido-Hill J; Zacher B; Wolff M; Santosham M

Laboratory of Infectious Diseases, Dana-Farber Cancer Institute, Boston,

DIALOG(R)File 144:Pascal

13718428 PASCAL No.: 98-0409711

Enzyme immunoassay detecting teichoic **and lipoteichoic acids versus cerebrospinal fluid culture and latex agglutination for diagnosis of Streptococcus pneumoniae meningitis**

STUERTZ K; MERX I; EIFFERT H; SCHMUTZHARD E; MAEDER M; NAU R

Department of Neurology, University of Goettingen, Goettingen, Germany; Department of Medical Microbiology, University of Goettingen, Goettingen, Germany; Department of Neurology, University of Innsbruck, Innsbruck, Austria

Journal: Journal of clinical microbiology, 1998, 36 (8) 2346-2348

ISSN: 0095-1137 CODEN: JCMIDW Availability: INIST-17088; 354000077164270370

No. of Refs.: 11 ref.

Document Type: P (Serial) ; A (Analytic)

Country of Publication: United States

Language: English

A newly developed enzyme immunoassay (EIA) was used to detect the presence of pneumococcal teichoic and lipoteichoic acids in cerebrospinal fluid (CSF) from patients with Streptococcus pneumoniae meningitis who were being treated with antibiotics. All initial CSF samples, which on culture grew S. pneumoniae, were positive in the EIA. A total of 14 subsequent culture-negative samples gave clear signals in the EIA up to day 15 after the onset of antibiotic treatment. For 11 CSF specimens, culture, microscopy, and latex agglutination were negative while the EIA detected pneumococcal antigens. The EIA did not react either with CSF of patients with meningitis caused by bacteria other than S. pneumoniae or by viral pathogens. In conclusion, this EIA can be a valuable tool for the diagnosis of S. pneumoniae meningitis from CSF samples in cases in which prior antimicrobial therapy minimizes the usefulness of culture or other antigen detection tests.

English Descriptors: **Streptococcus pneumoniae** ; Human; Diagnosis; Enzyme immunoassay; Performance evaluation; Comparative study; Teichoic acids; Lipoteichoic acid; Cerebrospinal fluid; Latex agglutination test; Meningitis; Streptococcal infection

Broad Descriptors: Streptococcaceae; Micrococcales; Bacteria; Bacteriosis; Infection; Nervous system diseases; Central nervous system disease; Streptococcaceae; Micrococcales; Bacterie; Bacteriose; Infection; Systeme nerveux pathologie; Systeme nerveux central pathologie; Streptococcaceae; Micrococcales; Bacteria; Bacteriosis; Infeccion; Sistema nervioso patologia; Sistema nervosio central patologia

French Descriptors: **Streptococcus pneumoniae** ; Homme; Diagnostic; Methode immunoenzymatique; Evaluation performance; Etude comparative; Teichoique acide; Lipoteichoique acide; Liquide cephalorachidien; Test agglutination latex; Meningite; Streptococcie

Classification Codes: 002B05B02I

26/9/79 (Item 7 from file: 144)

DIALOG(R)File 144:Pascal

11971470 PASCAL No.: 95-0153016

Detection **of pneumococcal** polysaccharide **antigens in the urine of patients with bacteraemic and non-bacteraemic pneumococcal pneumonia**

NIELSEN S V; HENRICHSEN J

Statens seruminst., dep. bacteriology, div. diagnostic microbiology, 2300 Copenhagen, Denmark

Journal: Zentralblatt fuer Bakteriologie, 1994, 281 (4) 451-456

ISSN: 0934-8840 Availability: INIST-3329; 354000057407830060
No. of Refs.: 25 ref.
Document Type: P (Serial) ; A (Analytic)
Country of Publication: Federal Republic of Germany
Language: English

English Descriptors: Human; **Streptococcus pneumoniae** ; Pneumonia; Urine; Streptococcal infection; Detection; Diagnosis; Method; Antigen; Microorganism capsule
Broad Descriptors: Streptococcaceae; Micrococcales; Bacteria; Respiratory disease; Lung disease; Bacteriosis; Infection; Streptococcaceae; Micrococcales; Bacterie; Appareil respiratoire pathologie; Poumon pathologie; Bacteriose; Infection; Streptococcaceae; Micrococcales; Bacteria; Aparato respiratorio patologia; Pulmon patologia; Bacteriosis; Infeccion

French Descriptors: Homme; **Streptococcus pneumoniae** ; Pneumonie; Urine; Streptococcie; Detection; Diagnostic; Methode; Antigene; Capsule microorganisme

Classification Codes: 002B05B02N

26/9/80 (Item 8 from file: 144)
DIALOG(R)File 144:Pascal

11820303 PASCAL No.: 94-0703928
Diagnosis of Streptococcus pneumoniae pneumonia by quantitative **enzyme linked immunosorbent** assay **of C-** polysaccharide **antigen**
GILLESPIE S H; SMITH M D; DICKENS A; RAYNES J G; MCADAM K P W J
Royal free hosp. school medicine, div. communicable diseases, London NW3 2QG, United Kingdom
Journal: Journal of clinical pathology, 1994, 47 (8) 749-751
ISSN: 0021-9746 CODEN: JCPAAK Availability: INIST-3020; 354000040656200170
No. of Refs.: 16 ref.
Document Type: P (Serial) ; A (Analytic)
Country of Publication: United Kingdom
Language: English
Aims-To evaluate the use of a quantitative enzyme linked immunosorbent assay (ELISA) detecting C-polysaccharide (PnC) antigen in sputum for the diagnosis of Streptococcus pneumoniae infection. Methods-Specimens of sputum from 60 patients with acute community and hospital acquired pneumonia and infective exacerbations of obstructive airways disease were examined by semiquantitative culture and antigen ELISA. Resuls-Using a cutoff value of 1 mu g/ml PnC antigen for a positive result, the sensitivity of this assay was 90.3%, specificity 93.1%, predictive value of a positive result was 93.5%, and the predictive value of a negative result 89.6%

English Descriptors: Pneumonia; **Streptococcus pneumoniae** ; Diagnosis; ELISA assay; Antigen; Human
Broad Descriptors: Streptococcaceae; Micrococcales; Bacteria; Respiratory disease; Lung disease; Streptococcaceae; Micrococcales; Bacterie; Appareil respiratoire pathologie; Poumon pathologie; Streptococcaceae; Micrococcales; Bacteria; Aparato respiratorio patologia; Pulmon patologia

French Descriptors: Pneumonie; **Streptococcus pneumoniae** ; Diagnostic; Technique ELISA; Antigene; Homme; Polyoside C

Classification Codes: 002B05B02E

26/9/84 (Item 12 from file: 144)

6/9/7 (Item 7 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

10063328 BIOSIS NO.: 199598518246
Detection **of C-** polysaccharide **in serum of patients with Streptococcus pneumoniae bacteraemia.**
AUTHOR: Gillespie S H(a); Smith M D; Dickens A; Raynes J G; McAdam K P W J
AUTHOR ADDRESS: (a)Dep. Med. Microbiol., Royal Free Hosp., Sch. Med., Rowland Hill Street, London NW3 2PF**UK
JOURNAL: Journal of Clinical Pathology (London) 48 (9):p803-806 1995
ISSN: 0021-9746
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Aim: To investigate the fate of Streptococcus pneumoniae C-polysaccharide antigen in serum in patients with S. pneumoniae bacteraemia. Method: In vitro dissociation experiments were performed to demonstrate that C-polysaccharide was masked by ligands in normal and acute phase serum. Serum samples from 22 patients with S. pneumoniae bacteraemia were treated to dissociate immune complexes and then tested for C-polysaccharide by enzyme linked immunosorbent assay (ELISA). Results: C-polysaccharide antigen was masked in normal and acute phase serum but could be released by EDTA treatment and detected by ELISA. Antigen was found in six patients ranging in concentration from 2.5 to 200 ng/ml. Patients with detectable antigen were more likely to die than those in whom antigen was not detected. Conclusion: This study demonstrates that C-polysaccharide antigen commonly circulates in patients with S. pneumoniae bacteraemia but its presence is masked by ligands present in serum.

DESCRIPTORS:
MAJOR CONCEPTS: Immune System (Chemical Coordination and Homeostasis); Infection
BIOSYSTEMATIC NAMES: Gram-Positive Cocci--Eubacteria, Bacteria; Hominidae --Primates, Mammalia, Vertebrata, Chordata, Animalia
ORGANISMS: gram-positive cocci (Gram-Positive Cocci); human (Hominidae); **Streptococcus pneumoniae (Gram-Positive Cocci)**
BIOSYSTEMATIC CLASSIFICATION (SUPER TAXA): animals; bacteria; chordates; eubacteria; humans; mammals; microorganisms; primates; vertebrates
MISCELLANEOUS TERMS: ANTIGEN; BACTEREMIA
CONCEPT CODES:
34504 Immunology and Immunochemistry-Bacterial, Viral and Fungal
36002 Medical and Clinical Microbiology-Bacteriology
10068 Biochemical Studies-Carbohydrates
BIOSYSTEMATIC CODES:
07700 Gram-Positive Cocci (1992-)
86215 Hominidae

26/9/8 (Item 8 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

09813929 BIOSIS NO.: 199598268847
Dot-enzyme-linked immunosorbent assay **(Dot-ELISA) for** detection **of pneumococcal** polysaccharide **antigens in pleural fluid effusion samples. Comparison with bacterial culture, counterimmunoelectrophoresis and latex agglutination.**
AUTHOR: Requejo Henry I Z(a); Alkmin Maria Das Gracas A; Almeida Regina G; Casagrande Silvana T; Cocozza Ana Maria; Lotufo Joao Paulo B; Waetge Aurora R P; Rodrigues Joaquim C
AUTHOR ADDRESS: (a)Instituto Adolfo Lutz, Secao Imunologia, Av. Dr. Arnaldo 355, 01246-902 Sao Paulo, SP**Brazil
JOURNAL: Revista do Instituto de Medicina Tropical de Sao Paulo 36 (6):p 531-537 1994

ISSN: 0036-4665
DOCUMENT TYPE: Article
RECORD TYPE: Citation
LANGUAGE: English
SUMMARY LANGUAGE: English; Portuguese
DESCRIPTORS:
MAJOR CONCEPTS: Enzymology (Biochemistry and Molecular Biophysics); Immune System (Chemical Coordination and Homeostasis); Infection; Pathology; Physiology; Pulmonary Medicine (Human Medicine, Medical Sciences); Serology (Allied Medical Sciences)
BIOSYSTEMATIC NAMES: Gram-Positive Cocci--Eubacteria, Bacteria; Hominidae --Primates, Mammalia, Vertebrata, Chordata, Animalia
ORGANISMS: gram-positive cocci (Gram-Positive Cocci); Hominidae (Hominidae); **Streptococcus pneumoniae (Gram-Positive Cocci)**
BIOSYSTEMATIC CLASSIFICATION (SUPER TAXA): animals; bacteria; chordates; eubacteria; humans; mammals; microorganisms; primates; vertebrates
MISCELLANEOUS TERMS: DIAGNOSTIC METHOD; PNEUMOCOCCAL PNEUMONIA
CONCEPT CODES:
10804 Enzymes-Methods
12504 Pathology, General and Miscellaneous-Diagnostic
15010 Blood, Blood-Forming Organs and Body Fluids-Other Body Fluids
16006 Respiratory System-Pathology
34502 Immunology and Immunochemistry-General; Methods
36002 Medical and Clinical Microbiology-Bacteriology
36504 Medical and Clinical Microbiology-Serodiagnosis
10064 Biochemical Studies-Proteins, Peptides and Amino Acids
10068 Biochemical Studies-Carbohydrates
10504 Biophysics-General Biophysical Techniques
BIOSYSTEMATIC CODES:
07700 Gram-Positive Cocci (1992-)
86215 Hominidae

26/9/9 (Item 9 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

09628110 BIOSIS NO.: 199598083028
Application of capillary ion electrophoresis and ion chromatography for the determination **of O-acetate groups in bacterial** polysaccharides .
AUTHOR: Hepler Robert W; Ip Charlotte C Yu(a)
AUTHOR ADDRESS: (a)Dep. Virus Cell Biol., Merck Res. Lab., West Point, PA 19486**USA
JOURNAL: Journal of Chromatography A 680 (1):p201-208 1994
DOCUMENT TYPE: Article
RECORD TYPE: Citation
LANGUAGE: English
DESCRIPTORS:
MAJOR CONCEPTS: Biochemistry and Molecular Biophysics; Immune System (Chemical Coordination and Homeostasis); Infection; Methods and Techniques; Pathology; Pharmacology; Physiology
BIOSYSTEMATIC NAMES: Gram-Positive Cocci--Eubacteria, Bacteria
ORGANISMS: gram-positive cocci (Gram-Positive Cocci); **Streptococcus pneumoniae (Gram-Positive Cocci)**
BIOSYSTEMATIC CLASSIFICATION (SUPER TAXA): bacteria; eubacteria; microorganisms
MISCELLANEOUS TERMS: ANALYTICAL METHOD; VACCINE DEVELOPMENT
CONCEPT CODES:
10058 Biochemical Methods-Carbohydrates
10504 Biophysics-General Biophysical Techniques
10506 Biophysics-Molecular Properties and Macromolecules
12512 Pathology, General and Miscellaneous-Therapy (1971-)
22018 Pharmacology-Immunological Processes and Allergy
31000 Physiology and Biochemistry of Bacteria
32000 Microbiological Apparatus, Methods and Media
34504 Immunology and Immunochemistry-Bacterial, Viral and Fungal
34508 Immunology and Immunochemistry-Immunopathology, Tissue Immunology

08539813 95310031 PMID: 7790088

Characterization of a recombinant pneumolysin and its use as a protein carrier for pneumococcal type 18C conjugate vaccines.

Kuo J; Douglas M; Ree HK; Lindberg AA

Lederle-Praxis Biologicals, Lederle Laboratories, Pearl River, New York 10965, USA.

Infection and immunity (UNITED STATES) Jul 1995, 63 (7) p2706-13, ISSN 0019-9567 Journal Code: GO7

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: INDEX MEDICUS

Pneumolysin from Streptococcus pneumoniae was expressed in Escherichia coli as a glutathione S-transferase fusion protein and **purified** by **affinity** and hydroxylapatite **chromatography** . The **purified** recombinant pneumolysin (rPL), with a molecular mass of 53 kDa, had a specific activity of 3 x 10(5) hemolytic units per mg of protein on rabbit erythrocytes and reacted identically in immunodiffusion with the antisera against native pneumolysin. The rPL was used as a protein carrier to prepare conjugate vaccine with pneumococcal type 18C **polysaccharide** (PS18C). The PS18C was directly coupled to rPL by reductive animation or was indirectly coupled to rPL via a spacer molecule, adipic acid dihydrazide. The conjugates were nontoxic for mice and guinea pigs at 100 micrograms per dose. The immunogenicity and protective efficacy of both conjugates were tested in mice. A single dose of either of the vaccines elicited a rise in **immunoglobulin** G antibody production; after two booster injections of the vaccines, statistically significant booster responses ($P < 0.001$) to both rPL and PS18C were produced. The sera containing the antibodies to rPL were capable of neutralizing the hemolytic activity of rPL to rabbit erythrocytes and the cytotoxicity of rPL to bovine pulmonary endothelial cells. Immunization with the conjugate vaccines conferred statistically significant protection in mice against lethal challenge with type 18C pneumococci.

Tags: Animal; Female

Descriptors: Bacterial Vaccines--immunology--IM; * **Polysaccharides** , Bacterial--immunology--IM; * **Streptococcus pneumoniae** --immunology--IM; *Streptolysins--metabolism--ME; Antibodies, Bacterial--immunology--IM; Cattle; Cloning, Molecular; Endothelium, Vascular--drug effects--DE; Guinea Pigs; Hemolysis; Mice; Pneumonia, Bacterial--prevention and control--PC; Recombinant Proteins--metabolism--ME; Streptolysins--immunology--IM; Vaccines, Conjugate--immunology--IM; Vaccines, Synthetic--immunology--IM

CAS Registry No.: 0 (Antibodies, Bacterial); 0 (Bacterial Vaccines); 0 (Polysaccharides, Bacterial); 0 (Recombinant Proteins); 0 (Streptolysins); 0 (Vaccines, Conjugate); 0 (Vaccines, Synthetic); 0 (pneumolysin)

Gene Symbol: ist/GeneSymbol ply

Record Date Created: 19950727

20/9/52 (Item 8 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

07613504 92325202 PMID: 1624568

Enzyme immunoassay for detection of immunoglobulin **G (IgG), IgM, and IgA antibodies against type 6B pneumococcal capsular** polysaccharide **and cell wall C** polysaccharide **in chinchilla serum.**

Koskela M; Harris M; Giebink GS

Department of Medical Microbiology, University of Oulu, Finland.

Journal of clinical microbiology (UNITED STATES) Jun 1992, 30 (6) p1485-90, ISSN 0095-1137 Journal Code: HSH

Contract/Grant No.: 5P50-DC00133, DC, NIDCD

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: INDEX MEDICUS

Conjugation of the capsular **polysaccharides** of Streptococcus pneumoniae to protein carriers has introduced a new generation of pneumococcal

vaccines which may be efficacious in preventing pneumococcal otitis media during infancy. The chinchilla model has been used extensively for studying the pathogenesis of pneumococcal otitis media and for testing the efficacy of early pneumococcal capsular **polysaccharide** (PCP) vaccines, but immunologic studies in the chinchilla have been limited by the lack of antibodies against specific **immunoglobulin** isotypes. By using **affinity purified** rabbit **immunoglobulin** G (IgG) anti-chinchilla IgG, IgM, and IgA, we developed a sensitive enzyme immunoassay that is highly specific for IgG, IgM, and IgA antibodies against type 6B PCP (anti-6B) and against C **polysaccharide** in chinchilla serum. Antibody titers increased in serum from five chinchillas immunized with a type 6B outer membrane protein complex vaccine. Increases of anti-6B IgG and IgM antibody titers were more striking than increases of anti-6B IgA or anti-C **polysaccharide** IgG, IgM, or IgA titers were.

Tags: Animal; Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.

Descriptors: Antibodies, Bacterial--blood--BL; * **Immunoglobulin** Isotypes --blood--BL; * **Polysaccharides** , Bacterial--immunology--IM; * **Streptococcus pneumoniae** --immunology--IM; Bacterial Capsules--immunology--IM; Cell Wall --immunology--IM; Chinchilla; IgA--blood--BL; IgG--blood--BL; IgM--blood --BL; Immunoenzyme Techniques

CAS Registry No.: 0 (Antibodies, Bacterial); 0 (Bacterial Capsules); 0 (IgA); 0 (IgG); 0 (IgM); 0 (Immunoglobulin Isotypes); 0 (Polysaccharides, Bacterial)

Record Date Created: 19920807

20/9/33 (Item 26 from file: 73)

00777860 EMBASE No: 1977123272

Mechanisms by which hapten conjugates of pneumococcal polysaccharide **interfere with the challenge of anti hapten memory cells**

Romano T.J.; Lerman S.P.; Thorbecke G.J.
Dept. Pathol., New York Univ. Sch. Med., New York, N.Y. United States

European Journal of Immunology (EUR. J. IMMUNOL.) 1976, 6/6 (434-442)
CODEN: EJIMA
DOCUMENT TYPE: Journal
LANGUAGE: ENGLISH

Incubation of trinitrophenylated hemocyanin (TNP KLH) primed spleen cells with microgram amounts of 2,4 dinitrophenyl (DNP) or 2,4,6 trinitrophenyl (TNP) conjugates of pneumococcal **polysaccharide** type 3 (SIII) for as little as 5 min at 4degreeC results in a specific 'block' of the 19S and 7S adoptive memory response to TNP KLH. This hapten SIII induced block of anti hapten memory B cell responsiveness seems to be an example of specific receptor blockade. The block is specific and can be prevented by simultaneous incubation of the primed cells with hapten protein conjugates which presumably compete with the hapten **polysaccharide** for attachment to the B cell surface via anti hapten **Ig** receptors. Removal via capping of these **Ig** receptors by exposure of TNP KLH primed memory cells to rabbit anti mouse Fab serum for 45 min at 37degreeC renders these cells refractory to the blocking effect of hapten SIII. Once the hapten SIII has attached to the memory cells, these blocked cells can be 'rescued' (i.e. returned to a state of responsiveness) by incubating these cells with either mouse anti SIII at 37degreeC or rabbit anti DNP serum at 4degreeC. Since a papain digest of the IgG fraction of rabbit anti DNP did not rescue the cells while the intact IgG did, a capping off of the TNP SIII was proposed as the mechanism for this return to responsiveness of the hitherto blocked cells. A rescue was not seen by treatment of recipient mice with such B cell mitogens as dextran sulfate, endotoxin or **purified** protein derivative of tuberculin.

DRUG DESCRIPTORS:
*lymphocyte antigen receptor; * **polysaccharide** ; *trinitrophenylhapten
MEDICAL DESCRIPTORS:
*b lymphocyte; *antigen antibody reaction; * **streptococcus pneumoniae** ; *

--IM; * **Streptococcus pneumoniae** --isolation and **purification** --IP; Reference Standards; Sensitivity and Specificity; **Streptococcus pneumoniae** --immunology--IM
CAS Registry No.: 0 (Antibodies, Bacterial); 0 (Polysaccharides, Bacterial)
Record Date Created: 19980526

20/9/48 (Item 4 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

09528562 97220488 PMID: 9067650
Characterization of specific immunoglobulin **G (IgG) and its subclasses (IgG1 and IgG2) against the 23-valent pneumococcal vaccine in a healthy adult population: proposal for response criteria.**
Rodrigo MJ; Miravitlles M; Cruz MJ; de Gracia J; Vendrell M; Pascual C; Morell F
Department of Biochemistry (Immunology Unit), Hospital General Vall d'Hebron, Barcelona, Spain.
Clinical and diagnostic laboratory immunology (UNITED STATES) Mar 1997, 4 (2) p168-72, ISSN 1071-412X Journal Code: CB7
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
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The aim of the study was to standardize an enzyme-linked immunosorbent assay (ELISA) method for the quantification of **immunoglobulin** G (IgG) and its subclasses (IgG1 and IgG2) against the 23-valent pneumococcal vaccine and to establish the criteria for a normal response to the vaccine. Forty healthy individuals (20 women and 20 men; mean age, 29 years) were studied. All were vaccinated with the 23-valent pneumococcal vaccine; blood samples were drawn just prior to and 3 weeks after immunization. Quantification of specific IgG and its subclasses was performed by an ELISA with the vaccine as the antigen. The linearity of the ELISA method was demonstrated by the similar slopes of the linear regression lines generated from the titration of sera with different antibody concentrations. The specificity of the antibodies against the vaccine was demonstrated by (i) an absorption test with pneumococcal vaccine, (ii) a cross-reactivity experiment with Haemophilus influenzae type b **polysaccharide** , and (iii) **affinity chromatography** with protein A-Sepharose. Response to the vaccine was defined by using the lower level of the 90% probability interval (one-tailed) for postimmunization-specific IgG, IgG1, and IgG2. By using this cutoff, responders were considered to be those with an absolute increase in antibody titers higher than 395 arbitrary units/ml for IgG, 0.350 A450 units for IgG1, and 0.314 A450 units for IgG2. Overall, 20 (50%) subjects had IgG, IgG1, and IgG2 responses, 9 (22.5%) had IgG and IgG2 responses, 4 (10%) had IgG1 responses, 3 (7.5%) had IgG and IgG1 responses, and 4 (10%) were nonresponders. Ninety percent of our population responded to the 23-valent pneumococcal vaccine. Up to 10% of healthy individuals may respond to an IgG subclass without significant increases in total IgG titers. The ELISA method that is described may be useful for evaluating the specific antibody response against **polysaccharides** .
Tags: Female; Human; Male; Support, Non-U.S. Gov't
Descriptors: Antibodies, Bacterial--blood--BL; *Bacterial Vaccines --immunology--IM; *Enzyme-Linked Immunosorbent Assay--standards--ST; *IgG --blood--BL; * **Streptococcus pneumoniae** --immunology--IM; Adult; Antibody Specificity; Cross Reactions; Enzyme-Linked Immunosorbent Assay--methods --MT; Immunosorbent Techniques; Middle Age; Pneumococcal Vaccines; Reference Standards
CAS Registry No.: 0 (Antibodies, Bacterial); 0 (Bacterial Vaccines); 0 (IgG); 0 (Pneumococcal Vaccines)
Record Date Created: 19970603

20/9/50 (Item 6 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

ile 73:EMBASE 1974-2000/Oct
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*File 73: Update codes are currently undergoing readjustment.
For details type Help News73.
File 77:Conference Papers Index 1973-2000/Sep
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Set	Items	Description
S1	5	RECEPTOR?/TI AND POLYSACCHARID?/TI AND PNEUMONI?/TI
S2	3	RD (unique items)

?t s2/9/2

2/9/2 (Item 1 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

09431805 BIOSIS NO.: 199497440175
Virulence of Streptococcus pneumoniae **(Spn) for mice is serotype-dependent: Saturable** receptors **of capsular** polysaccharides **(PPS) of certain serotypes may account for natural host resistance.**
AUTHOR: Musher D(a); Watson D; Musser J; Elliott J; Facklam R
AUTHOR ADDRESS: (a)Veterans Affairs Med. Cent., Houston, TX**USA
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BIOSYSTEMATIC NAMES: Gram-Positive Cocci--Eubacteria, Bacteria; Muridae--Rodentia, Mammalia, Vertebrata, Chordata, Animalia
ORGANISMS: gram-positive cocci (Gram-Positive Cocci); Muridae (Muridae); Streptococcus pneumoniae (Gram-Positive Cocci)
BIOSYSTEMATIC CLASSIFICATION (SUPER TAXA): animals; bacteria; chordates; eubacteria; mammals; microorganisms; nonhuman mammals; nonhuman vertebrates; rodents; vertebrates
MISCELLANEOUS TERMS: MEETING ABSTRACT; MEETING SLIDE
CONCEPT CODES:
10068 Biochemical Studies-Carbohydrates
31000 Physiology and Biochemistry of Bacteria
31500 Genetics of Bacteria and Viruses
34504 Immunology and Immunochemistry-Bacterial, Viral and Fungal
36006 Medical and Clinical Microbiology-Virology
00520 General Biology-Symposia, Transactions and Proceedings of Conferences, Congresses, Review Annuals
34508 Immunology and Immunochemistry-Immun